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THE MARYLAND FARMER:

DEVOTED TO

Agriculture, Horticulture, Rural Economy & Mechanic Arts.

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AGRICULTURE AT THE SOUTH.

In an address which was recently delivered before the Pomological Society at Richmond, Virginia, the Hon. Henry A. Wise touched upon one topic which has at this time a peculiar interest for the people of the South. Referring to the abolition of slavery, the little dependence to be placed in the freed negro population, and the utter disorganization into which the old system of culture has been thrown by the war, he said :

"These changes demand an absolute change in agriculture, a change from the plantation to the farming system. This requires a new mode of culture, new laborers, new implements, new crops, more various, on a smaller scale, more contracted and concentrated, requiring more skill, more care and yielding the most profit on the smallest space. Virginians, if they would not be driven out from their own inheritance, should themselves do this work of farming for themselves. They must not call on Hercules, nor freedmen, nor German, nor Swede, nor immigrants from any clime."

All experience has shown that the cotton, sugar and rice plantations at the South cannot be cultivated with white labor—the upland cotton plantations perhaps alone excepted. In the hot, malarious districts bordering on the lower Mississippi, and along the shores of the Gulf, either negro or Asiatic labor becomes a matter of necessity. But as the land recedes from the seaboard, and more especially as it approaches the mountains, that absolute change in the old mode of farming, which Mr. Wise contends is demanded by the altered condition of things, becomes very generally practicable, and, as applied to Virginia, entirely so. The change from the plantation to the farming system, which Mr. Wise advocates, has been frequently and earnestly suggested by us, in view of the difficulty of obtaining skilled laborers in sufficient numbers to cultivate large quantities of land, and also because with the adoption of a thorough system of farming the increased product per acre will more than compensate for the lesser quantity of land brought under tillage. There are of course instances where large farms energetically conducted and judiciously supervised may be made equally as profitable, if not more so, than smaller

ones as compared with the amount of capital invested. But these cases are becoming rarer every day, not from any deficiency of means, or want of capacity on the part of the owner or his overseer, but by reason of the lack of steady working field hands.—Mr. Wise is also perfectly right in saying that a new mode of culture must be adopted at the South, a greater variety of crops grown, and new laborers and new implements brought into general use. The deficiency of labor must be made up by the introduction, to a much larger extent than ever before, of labor-saving machines and implements of the best construction; the free use of mineral manures and fertilizers, both domestic and commercial, and the concentration of all the operations of the farm within a compass that shall be easily manageable with but few hands, aided by the labor-saving appliances to which we have referred. As an illustration of what the inventive genius of the age has accomplished for manufactures, we need but contrast the old distaff and spinning wheel and the rude loom, worked so tediously by hand, with the complex yet beautiful machinery that now fills our cotton and woolen mills, and by the aid of steam, and with but comparatively few operatives, turns out a thousand yards of cotton or woolen goods in a less space of time than five yards could be woven by the old fashioned method. Now it is just here that the great want of the agriculturist is felt. It is quite as possible to apply machinery to the service of agriculture as to cotton or woolen mills, and the necessity for doing so has become so pressing as to stimulate, whilst it will richly reward invention. We have already many labor-saving machines, some of which are exceedingly useful, and many really indispensable to the skillful farmer. We sow, we reap, we mow, and we even garner, in part, by machinery. The time is not far distant when we shall also plough by steam, and when this, the last, and most important desideratum is accomplished farming will bring into play other faculties now dormant and will exercise fewer muscles and more brains. We do not think that farming, any more than medicine, can ever be reduced to an exact science, for the conditions are so various,

and the modifications of soil so infinite, as to prevent any but general rules from being given. Those rules, however, state broadly the true principles upon which successful farming is based. We know that if the land is poor it must be enriched by manures and green crops before it can be made profitably productive. We know that a rotation of crops, in which the green crops are alternated with the cereals, improves the land under judicious culture, and that to grow a succession of the same crops on the same piece of land will rapidly exhaust the soil. We know too that the more nearly the cultivation of the farm approaches to that of the garden, the more certain the crops will be and the greater the acreable product. We know further that by making dairy farming or the raising of stock a part of the system in use, the land may annually be made richer, from the fact that what is taken from it in the shape of crops and fed to the stock is returned to it in the form of manure. The only lands that are constantly undergoing the process of exhaustion are those where everything is taken off and nothing put on. Hence, we find that the most productive farms are those which are under the highest culture, which are fertilized annually in proportion to the extent they are cropped, and where the work is so thoroughly systematized that all the operations are carried on in due season, and the force required is adequate to the work to be done. Now, for the most part, this system of high culture cannot be carried on except on farms of comparatively small extent, and this contraction and concentration of labor is what Mr. Wise most judiciously advises in the present condition of the South. When he also suggests that Virginians, if they would not be driven out from their inheritance, should do this work of farming for themselves, he touches upon a point which has often been made a matter of reproach, but is not likely to be so to the same extent any longer. We cannot, however, coincide with Mr. Wise when he objects to the introduction of foreign immigrants. We understand very well the pride that would keep Virginia for the Virginians; but we do not think, knowing the want of agricultural labor and the industrious habits of the class of laborers he would exclude, that he properly considers the welfare of his native State when he thus seeks to cripple its powers of production.

WORTH KNOWING.—An exchange says: "A poison of any conceivable description and degree of potency, which has been swallowed, intentionally or by accident, may be rendered instantly harmless by swallowing two gills of sweet oil. An individual with a very strong constitution should take twice the quantity. This oil will neutralize every form of vegetable or mineral poison with which physicians and chemists are acquainted."

WATER SUPPLY.

Every year complaints are heard in some of our large cities concerning the impurity of the water supplied to the inhabitants. In Boston it has an ancient and fish like smell. In New York it is occasionally represented as noxious. In Baltimore the spring rains and enormous water shed make it turbid. In all these cases mud, organic matter and deleterious substances are in it. The doctors object to the mixture in the interests of their patients, and at last the citizens become aroused, the papers discuss the matter, and finally the remiss authorities set about ascertaining what is best to be done. By a vigorous cleansing of reservoirs, supply pipes and cisterns a partial reform is effected, and things work smoothly again until the trouble recurs and the complaints are renewed.

It is frequently a long time before proper attention is given to what, if persisted in, would become a prolific source of disease, for there is nothing the generality of people are so careless about as really pure, wholesome water. Only when its impurities become evident to the sight, or nearly unbearable to the taste, do they rouse themselves from their habitual neglect of a subject so important and take action in such a manner as to compel a remedy to be sought. Echoes of these complaints in the cities occasionally reach those living in the country. They excite no interest in the minds of the farmer and country gentleman. Their conviction is too firm to be shaken that all water that comes from a spring, whether it be covered or open, filled with leaves or clear of them, muddy at the bottom and slimy at the sides, or gravelled and cemented, must be pure and uncommonly healthy, merely because constantly renewed. Moreover, it is generally conceded that one of the great advantages of the country is the purity of the water there obtained. In our opinion, carelessness in this simple and easily remedied matter not unfrequently causes serious derangement of the system, and that many of the obscure diseases that baffle or perplex the country physicians may be attributed to the habitual use of impure water. Harm at least in some shape must ensue both from wells improperly constructed and only occasionally used, and also from living springs wherever attention to the purity of the water is neglected. No man of good judgment ought to allow any impurities to exist in an element so vitally necessary on account of the important part it performs in the sustenance and reparation of the animal economy. Upon the nature of its constituents depend health or disease, vigor or weakness. A careful attention to its purity is therefore essentially required at all times, but especially in the autumn, when the leaves are falling and vegetation decaying. About many houses in the country there are also other things connected with this subject that need

looking after. The spring is often so far off that its place has to be taken for general purposes by the water butt or cistern. In limestone districts, and in many parts of the South where the water is brackish or the scanty supply has to be increased by saving the rain water, cisterns are frequently to be found, some of which are of immense capacity. Built of stone and cement, and in some places of cement merely, these cisterns are placed directly behind, if possible, and if not, quite near to the kitchen and connected with it by a pipe through which the water is drawn by the action of a pump. They are very useful adjuncts under certain circumstances, and, if properly cared for, furnish a valuable supply of pure, soft water, which in limestone districts is certainly preferable for domestic purposes to that drawn from the neighboring springs. These cisterns, however, require incessant care, and if the water is suffered to become saturated with impurities the health of those who drink it may be placed in jeopardy. The addition, however, of a filter obviates many of the objections which might otherwise be made to them. But even when the water collected in tanks and cisterns is really good, deleterious effects may be produced from the overflow, or waste. There are, of course, wherever water is brought into the house, waste pipes leading from the tank, the bath room, the wash room and the kitchen. Too frequently the water passing off thus, instead of being carried clear of the premises merely penetrates without flowing through an underground drain. If this latter has not decline enough to carry off the waste water rapidly, which is sometimes the case, the drain is soon clogged, becomes foul and throws out gaseous vapors which ascend through the waste pipe and are carried through the house. One popular remedy for this is to curve the waste pipe in the form of the letter S, the curvature being made so as to hold a certain quantity of water, and act as a kind of water cock. The evil is, however, only partially counteracted by this contrivance. The "water cock" itself absorbs the emanations from the drain during the night and parts with them during the day, when they either rise into the cistern or tank and are absorbed by the water there, or into the room to which the pipe leads and are dispersed through its atmosphere. There is only one safe mode to be adopted in this matter, and that is to carry the pipe itself to some distance beyond the house—a simple but hardly as safe a remedy as the above, and possible only as respects the kitchen, bath room, &c., is to keep a cork in the waste pipe over night; to partly fill the reservoir above every morning with water, and then to take the cork out and allow the water to rush through the pipe and clean it, and, in some measure, the drain also.

Flowers are like the Pleasures of the world.

MARYLAND FARMING.

Luther H. Tucker of the *Country Gentleman*, in his recent editorial correspondence, gives the following upon Maryland Farming:

BURNING LIME IN STACKS.—In driving southwardly from Fredrick, we made a brief call at the farm of Mr. C. K. Thomas, three and a-half miles from the city—an excellent tract of about 300 acres. Here they were burning lime in open stacks, a process which is perhaps worthy of description in detail. The dimensions of the stack we saw, were 13 by 27 feet on the ground. Trenches are first dug crosswise, three of four feet apart, and a foot or 18 inches in depth and width. Flat stones are over these trenches, and then a layer of wood, requiring three lengths transversely, to cover the whole space allotted. Then follow alternate layers of limestone, and soft (Clumberland) coal—the lower layers of limestone broken up in pieces of from the size of an egg to four or five inches across, while the upper ones grow larger as the heap advances. The coal is distributed evenly over the stone, of sufficient depth fairly to cover it, and thicker along the outside than toward the middle. In a stack of this size from 1,600 to 1,800 bushels of lime can be burned. It is carried up to seven feet in height, and when completed the outside is banked completely over with 18 inches of earth, supported on the sides by boards and rails. The trenches underneath are then extended far enough out from the stack, to admit of kindling, and when going, the process will pretty much take care of itself. The calculation of coal required, is 18 bushels to 25 cubic feet of stone, and a ton of coal will make 100 bushels of lime.

Wood is sometimes used for fuel instead of coal, in which case arches are carried under the stack, three feet high, and the layers of stone are in larger pieces at the bottom instead of toward the top. The kilns then require constant attention to keep the fires burning.

These stacks or kilns are often made directly in the field where the lime is to be used, and the whole cost, including quarrying, fuel, attendance, &c., may now be reckoned at about 10 cents per bushel. In spreading the lime, the field is chequered off in 21 foot squares; a half bushel put upon each of these squares is equivalent to fifty bushels per acre, and is put in a little pile, where it stands until slacked, and is then scattered evenly over the ground.

WHEAT SEEDING.—The *Comet*, of St. Michael's, Talbot County, Md., of the 16th Sept. says:—The farmers in this section of the country are pretty well convinced that early seeding gives the best chances for a crop of wheat. Carrying out this idea, many of them have seeded their fallow fields, and on some farms the wheat is up.

Our Agricultural Calendar.

Farm Work for November.

What Bryant calls "the melancholy days, the saddest of the year," are now upon the farmer, and although we think the remark is not just as applied to our Fall season, with its crisp air and its clear invigorating atmosphere, there are of course temperaments which sadden at the sight of decaying leaves. It is certainly the season of counting up gains and losses. All, or nearly all the work of the year has been accomplished. The cereal crops of the year have been housed or stacked, and now the root crops are to be secured and stowed away. There is no longer the hurry and pressure which tax the energies of the agriculturist from early spring until the corn crop is harvested; but matters now can be taken leisurely. On a farm however there is always work that may be and should be done, and it is in these intervals of comparative leisure that the desultory labours of the farm commence. By desultory labours we mean all work outside of the pitching and gathering of crops. Wood is to be cut for seasoning—fencing stuff gotten out—seasoned wood hauled—repairs made to gates and fences—to the farm steading if needed, and to all farming implements. These things now will engage attention, and he who does not desire to be driven by his work when work commences again in earnest, will do well to perform all these minor duties while he can. The work for the month is as follows.

FALL PLOUGHING.

All stiff clay lands will be greatly ameliorated by ploughing them in the fall, at any time before heavy frosts lock up the ground. After ploughing them they should not be harrowed but should be left in the rough so that the frost may have the largest action upon the upturned surface of the ridges. But whilst all lands in which clay predominates will be improved by a winter fallow, such would not be the case with light sandy soils. With such soils fall ploughing would prove an injury rather than a benefit. One precaution however, should be taken even in ploughing heavy soils—they must not be worked in a wet state, or they will break up in clods which, as they subsequently become dry, will become so hard that the frost will not act upon. Wherever a heavy sod is turned under there is however very little injury to be apprehended, even if the soil is moist, provided it does not contain an excess of water.—In any case when clays are ploughed in the fall the land should be ridged into beds with deep water furrows between to carry off the surplus moisture. In the spring run a heavy harrow over the field and drag all down as nearly to a level as possible—next

cross plough and harrow again. The extra labour will be amply repaid by the extra produce.

MATERIALS FOR COMPOSTS.

Every species of rough fibrous material is capable of being converted into manure—so also is woods' mould—the scrapings of ditches, decaying leaves, marsh mud—the turf of head rows—all these should be assiduously collected and carted to where the compost heap is to be made. When a sufficient quantity is gathered commence making the heap by depositing first of all a heavy layer of farm manure. Follow this with a layer of the materials for compost, and continue to construct the heap layer by layer, in the proportion of one load of manure to three loads of rough fibre. If the heap is well built fermentation will set in after awhile, the period at which fermentation will take place being regulated by the state of the weather. After the heap is well heated throughout, it should be broken down and intimately mixed, and it will then be in a condition to be spread broadcast over the field.

Stables and Cow Houses.

We have already frequently adverted to the fact that comfortable stables and cow houses economise the feeding of stock. Where the latter are exposed to the weather they require a larger amount of food and of a richer quality than when properly housed. The reason is obvious, in severe weather, with exposed cattle, the loss of caloric incident to that exposure must be made good by high feeding. But even in this case the health of the cattle cannot be so well maintained as when they are protected from the inclemency of the winter weather by properly constructed sheds.

SHEEP.

In the covered sheds in which sheep are sheltered through the winter the floor should be kept well supplied with leaves and woods' mould, over which plaster should be occasionally sprinkled.

FATTENING HOGS, &c.

After hogs have been put up for fattening, and during the first week of the fattening process, cooked roots, apples, pumpkins, and vegetables of various kinds, mixed with a small quantity of corn meal, should be given them. At a later period increase the quantity of meal, and during the last three weeks of the fattening they should be fed exclusively on cooked corn meal and slops. It is extremely wasteful to feed corn in the ear. We may here remark, that warm and comfortable sleeping apartments for the hogs expedite the process of fattening, and that the open portion of the pens should be at all times furnished with an abundance of rough vegetable fibre and woods' mould, to be worked over by the animals and converted into the richest of manures.

ROOT CROPS.

See that the root crops are properly housed, and take care that the roots are not bruised in the handling.

GRANARIES.

All granaries should be effectually cleansed and whitewashed before using. We have already given in previous numbers of the *Farmer* the best method to be adopted.

DRAINING WET LANDS.

All lands containing an excess of moisture will be permanently benefited by judicious draining.

FIREWOOD.

See that an abundant supply of firewood is obtained in due season for the uses of the household throughout the winter.

IMPROVEMENT OF SOILS.

When sand rests upon a clay subsoil, it is often very much improved by penetrating the subsoil in plowing, and mingling the two together, since the clay furnishes the necessary amendment to such soil.

There is no way of improving soils more permanent in its character than this proper admixture of soils. They are more easily tilled, are more susceptible to the influence of manure, and can be more cheaply kept in a state of productiveness.

The most fertile soils are those in which the different earthy constituents are properly balanced, and in the improvement of farms it is well to look to the character of soil, and consider whether there are not other means within reach, apart from a direct application of manure for its improvement. Land badly balanced in its composition, will perhaps, require a long series of years in the application of organic manures, before it reaches a condition, to which often it may be brought in a short time, by mingling with it a portion of the soil of an adjacent field. In many instances the expense of cartage in removing clay, sand, &c., renders their use impracticable, but frequently it can be effected cheaply, and will pay largely for the permanent character of the improvement made.

Sandy soils are benefited from the clay chiefly, by reason of its power as an absorbent, whereby manures, or matter resulting from the decomposition of roots and vegetables are not retained, and made available for the food of plants, while the sand benefits the clay soils by breaking up its tenacious qualities, and altering its texture, rendering it more easily worked and permeable to air, water and the roots of plants.—*Utica Herald*.

CORN.—The earliest ripe ears should be saved for seed for future use. Braid them up in tresses, by the husk, and hang in an airy, dry place.

Garden Work for November.

Winter Spinach.—See that the winter spinach is kept entirely free of grass or weeds. If it has been planted in rows, which is decidedly the best method, the plants should not be allowed to grow close together. Four inches apart, in the rows, is a good distance.

Strawberry Beds.—Clean off these as early as possible, if the work has not already been done.—Spread well rotted manure between the rows and fork it lightly in. Finish off by covering the beds with woods' mould and decayed leaves.

Asparagus Beds.—Cut down the haulm and burn it. Fork the bed over lightly, and free it from grass and weeds, and then scatter manure over the rows. A liberal dressing of salt and wood ashes may also be given at the same time, or early in the spring.

Rhubarb or Pie Plant.—The seed of this delicious plant may still be sown in a warm border during the early part of this month in preference to seeding in the spring. If the winter is not one of unusual severity, and the seed bed is moderately protected, late fall sowing will answer better than sowing in early spring.

Celery.—Earth up celery for blanching.

Endives.—Earth up Endives also for blanching.

Winter Cabbages.—Take up these and store them away. Roof them over with a light covering of corn stalks to protect them during the winter.

Small Salading.—Sow small salading in frames for winter use.

Cuttings of Gooseberries and Currants.—Cuttings of these fruits will strike well at this season if planted in a warm border and kept slightly shaded for a few days. Plant the cuttings in rows 18 inches apart between the rows and the cuttings in the rows 6 inches apart. All that take root should be suffered to remain in the bed until the following autumn, when they may be planted out where they are to stand permanently.

Raspberries.—Raspberry roots may still be planted in open weather.

Pruning Fruit Trees.—Fruit trees may be pruned either this month or early in February. Whichever season may be chosen see that the branches are cut smoothly off and close to the limb. Where large limbs are taken off cover the wound with a mixture composed of equal parts of beeswax, rosin and tallow, over which bind some stiff brown paper.

Trenching.—If the soil of the garden is stiff, haul over it a liberal quantity of sand, spread it broadcast. Trench the soil deeply and leave the ground roughly cast up throughout the winter.

She neglects her Heart who studies her Glass.

AN ESSAY ON THE CULTURE AND MANAGEMENT OF TOBACCO.

By W. W. W. BOWIE, of Prince Georges Co., Md.

(CONCLUDED.)

The *bright yellow* and *second* tobacco will "*condition*" generally best in such bulks as I have described, but the "*dull*" ought to be hung up, by standing the bundles on sticks, before it is put up in bulk, as soon, in fact, as it is stript. If the *bright* or *seconds* do not dry thoroughly in the bulks, that also should be hung up to become completely dry.— Properly to hang up tobacco to condition, small sized sticks should be procured and each one made very smooth, and kept expressly for that purpose.— After it has once been perfectly dry—so dry that the heads are easily knocked off, and the *shoulders* of the bundles upon being pressed crack like pipe-stems, it should be taken down, or if in bulk, removed the first soft spell of weather, as soon as it is soft and yielding enough, as it will become, to handle without crumbling or breaking, and it must be put in four, six or eight rowed bulks of any convenient length and height—the higher the better,—laid down close, so that as little of the leaf or shoulders as possible shall be exposed on the outside of the bulks. When completed, put sticks evenly over it, and then pile up logs of wood on the stick, so as to heavily weigh it down. Here it will keep sweet and in nice order for packing at any time, no matter how the weather may be, if it was conditioned properly, will not change a particle while in the condition bulk. Mild, soft pleasant weather is the best to pack tobacco in. The best tobacco prize is one known as "*Page's Prize*," much improved by F. Grieb, of Upper Marlboro', Prince George's Co., Md. It is cheap, expeditious in its working, being easily taken down and put up, may with convenience be moved from house to house.

As to the size of the hogshhead, the best size is the ultimatum of the law of Md., fifty-two inches long and forty inches in the head. Almost any wood will answer to saw into hogshhead stuff, the best of course, is that which is strong, but weighs light, as gum or poplar. No hogshhead ought to weigh over 100 lbs., and staves drawn from oak, make the best, though they are too costly.

It ought to have been observed, that while putting the tobacco in *condition* bulk, all bundles that were soft or had a bad smell, should have been laid aside to be rendered afterwards sweet and dry by a few hours exposure to the sun. This precaution must be observed in packing. In putting the tobacco in the hogshhead, he who packs, takes off his shoes and gets inside of the hogshhead, and has an assistant to hand him the tobacco. He lays one bundle at a time, in a circle, heads outward, beginning in the centre, and each circle is extended until the outer circle touches the staves of the hogshhead; a single row or bundle is then laid all around the edge, on the heads of the outer circle, then across the hogshhead in parallel rows, the middle being always raised a little higher than the outer edge.—

This is called a "*course*," and these *courses* are continued until the hogshhead be filled. The packer presses with his knees each bundle as he lays it down, and often stands on his feet and presses heavily, but cautiously all around, and across, so as to get in as much as possible. One receiving hogshhead, and two false hogshheads, five feet long, making fourteen feet four inches of tobacco, will weigh from nine hundred to one thousand pounds, if in good order, and well hand-packed. This concludes the almost ceaseless round of labor, necessary to prepare for market this important staple of our country.

7TH.—WHAT KIND OF MANURE THE BEST ?

Ashes at the rate of one hundred bushels per acre, sown broad-cast just when the land is harrowed the second time, is unquestionably the best manure for Tobacco. Experience fully proves this fact.

8TH.—MODE OF APPLYING IT—AND THE CONSEQUENCES OF ITS APPLICATION AS COMPARED WITH SOIL NOT MANURED.

It has just been stated how it is best to be applied, and its effects are so striking that there is no comparison between the land that is ashed, and the soil not dressed with ashes. New land for two crops however, would have the crop but slightly improved by ashes, if it was naturally fertile and newly cleared up.

9TH AND 10TH.—DIFFERENT MANURES, SUCH AS GUANO, BONE-DUST, &C., COMPARED WITH ONE ANOTHER, WITH REGARD TO TOBACCO, AND THEIR INFLUENCE ON THE VEGETATION OF THE PLANTS, AND ON THE INSECTS WHICH ATTACK IT.

Guano acts well on tobacco on most soils, but is of no use on rich tobacco soils—it is an useless expense. On very poor, stiff or light sandy soils, it is exceedingly valuable, and will well repay the outlay. When used in the seed bed, it causes the plants to grow quickly, and in a wet season would soon force the plants beyond the harm of the fly.— It certainly, too, if mixed with wood's earth, or rich dirt, and sown broad-cast over the young plants, would aid by forcing the plants and by its odor and other qualities, in keeping off to a great extent the fly. Bone dust is too slow in its action to help the tobacco crop much. *Potash* is a most active and powerful fertilizer for this crop. 100 lbs. of plaster of Paris, and 200 pounds of Potash well intermixed, or ground together, and applied to the acre just before the hills are stuck up, has been found to materially benefit the tobacco crop. The result of this application, has been found to surprise the most dubious and unbelieving. It is an admirable dressing for tobacco land.

Wooden charcoal applied thickly as a top-dressing to the plants in the bed, while moist with dew, is valuable, because the black surface would attract the rays of the sun, and cause by the increased heat, a greater growth of the plants, and it has been found effective in arresting the ravages of the fly.

11TH.—BEST, CHEAPEST AND MOST EFFECTUAL WAY EITHER TO DESTROY THOSE INSECTS, IF THEY SHOULD MAKE THEIR APPEARANCE, OR TO AVOID THEIR APPEARING ALTOGETHER.

The insects that molest the tobacco plants, are the Turnip fly, the tobacco fly, and the grub and tobac.

co worm. The tobacco fly is much smaller than the turnip fly, and of a lighter color. They both attack the plant in its tender state, and often destroy millions of plants. The only remedies that past experience has ever found of any avail, have been such as have already been pointed out. They do not trouble beds that are covered up with brush, but brush can only be allowed a certain time upon the beds, and when it is removed, the plants should receive very frequent dustings of very finely pulverized manure, or even sand, especially when the weather is cool, and dry with harsh winds. It is in such weather the fly delights to do its work of destruction. The *grub* is a small short brown worm, found in all old, rich land, and cuts off the young plants in the hill, just above ground below the bud, hence it is called by planters the "*cut worm*." Five bushels of refuse salt, or ten would be better, sown broad-cast over each acre, when the land was laid off for the hills, would effectually prevent their molestations, beside it would be a great help to the tobacco in its young state, giving it a quick and strong start, though its effects would not last through the season. The great pest is the tobacco worm. This worm is hatched on the tobacco leaf, grows very rapidly, and in a few days arrives at its full age or maturity, when instinct prompts it to bury itself some eight or ten inches under ground. In this self-made grave, it undergoes a change and makes its appearance as a sort of butterfly, which planters call "*Horn-blower*." These horn-blowers appear about the middle of May, and may be seen every morning and evening, flying about among the flowers and blossoming weeds, taking especial delight in the flowers of the Jamestown weed. They deposit their eggs on the tobacco leaf—laying myriads, not in clusters but separately, and seldom more than two or four eggs on a leaf. In about a fortnight these eggs produce a little worm so small, it is hardly to be seen by the naked eye, and yet it eats a hole in the leaf as though a large needle had punctured it; in a few days it has grown to be as large as a man's finger, and has eaten pounds of green tobacco. It is constantly eating and digesting its food, growing in size, and discharging its excrement, which is hard and round and black, resembling in form and color "*Lee's Anti-bilious Pills*." It is a fact no less true than wonderful, that this little worm, never reaching over two ounces in weight, will eat and digest in fifteen days, from two to three pounds of green tobacco. The larger ones make considerable noise while eating.—They ought to be destroyed as soon as they appear, or they will destroy the crop. Turkeys aid greatly the planter in killing these worms. They eat great quantities, and kill many they do not eat. It is a cherished amusement with the turkey, to kill tobacco worms, and they grow fond of the sport. Each year there are two "*gluts*" of worms. The first attack the tobacco, when about one fourth grown, and the second when it is nearly ripe and ready for housing. The first can be readily subdued with a good supply of turkeys, and if then they are effectually destroyed, the second glut can be easily managed, for it is a well settled fact, that a large portion of the first glut reappear the same year, as horn-blowers, and breed myriads. When the second army of worms comes on, the tobacco is generally so large that the turkeys are of little use. They must then be killed by hand. Begin in time, start when they are being hatched—keep up a strict

watch, going over the whole field, plant by plant, kill all that are to be seen, and destroy the eggs, and by constant attention, each morning and evening to this business alone, with the whole force of the farm, they may be prevented from doing much harm. When they disappear the second time, there is no more cause of trouble, for that year, at any rate. They might be in a few years wholly exterminated by concert and united action on the part of all tobacco planters, and in this manner: About the first of December, after the hard frosts have set in, plough up every field where tobacco had been grown that year, about ten inches deep. Those that where in the chrysalis state, would be thus turned up and be destroyed by the frosts, snow and rain, and birds. Very early in March, go about the tobacco houses and dig up the floors, scrape under the sills, and plough deeply for some distance, around the houses, and destroy every one that could be seen. Make it also a point to reward every negro, old and young, liberally, for each horn-blower's head throughout the whole year. In 1848 one gentleman offered one cent for every horn-blower that his negroes should catch and bring to him. He allowed them one hour before sunset, to stop work so as to catch blowers. The first evening they brought him in 1,650!!! Another paid to his people during the season, fifteen or twenty dollars, at only one fourth of a cent per head. Another farmer in digging about his tobacco house for the manure which had accumulated there, says he destroyed over a bushel of worms in the chrysalis state. The same year a planter gathered sixteen bushels from 40,000 plants, and did not get over one half then. That year great attention was paid to the destruction of the blower and worms, in the forest of Prince George's County, and for several years after there were comparatively but few worms. If this system was regularly pursued by every planter, in a few years this dreadful enemy of the plant, would be entirely exterminated, or at least rendered harmless.

13TH.—BEST METHOD, by horse-hoes or any other, to keep the field clean from weeds—has been fully discussed under the paragraphs 5th and 6th.

14TH.—THE PLANTING OF TOBACCO AT DIFFERENT DISTANCES COMPARED WITH ONE ANOTHER.

Three feet each way, under all circumstances, is most generally the best distance. It is wholly against my experience, to plant tobacco in drills, and work it only one way. On very rich land it will grow very large, as close as two feet each way—and two feet nine inches will produce large tobacco, but all these close plantings are objectionable, because it becomes troublesome to work, is liable to be broken and torn, and the worms cannot be properly got rid of, when it is so close together; for these reasons, I much prefer three feet each way, or at any rate 3x2 feet 6 inches. The closer it is planted, the finer will be the texture and quality as to color. This is my experience and observation of the crops of others.

15TH.—Different operations which it is subjected to before cutting.—See them fully explained, under headings 5th and 6th.

16th, 17th, and 18th.—Taking in the crops—the different operations to which it is subjected before being sent to market;—and the best mode of packing, have all been treated of, under 5th and 6th sections or paragraphs of this Essay.

19TH.—PREPARATIONS OR SUBSTANCES USED FOR THE PRESERVATION OF THE LEAF, BEFORE AND AFTER BEING READY FOR MARKET.

No other preparation or substance is used, or need be used, than such preparation as herein before stated, and the hogshead is the only substance required to preserve the leaf for ages, if it was well conditioned when packed into it, provided it be kept *dry*—that is, the hogshead be kept out of the wet weather, and free from water.

20TH.—EFFECT OF WATERING, OR ARTIFICIAL IRRIGATION, ON THE DEVELOPMENT AND QUALITY OF THE TOBACCO.

The tobacco plant requires frequent and light showers, or cool nights and heavy dews. Too much water as effectually kills it, as too much heat and drought. Judicious watering of the seed-bed is often very happy in its effects, and sometimes positively necessary. The plant could always be forced by this process, but the danger is that if forced too much, they become over-grown before there falls sufficient rain to enable the planter to set them in the hills. In a dry season what is termed watering is often done, and succeeds well. This is done, by watering a part of the seed-bed; so that the plant may be drawn easily without breaking the roots, or bruising the leaves or buds. The hills being newly made, about two hours before sunset, the laborers go into the field with the plant—one or two pass over the ground with stout clubs, striking one end in the centre of each hill, about two inches deep, and large enough to hold half a pint of water, others follow with buckets and cans, or gourds, and fill quickly the holes with water, others follow and drop the plant, which are directly planted by the planters. The water should have time to settle in the earth before the plants are stuck. Some prefer to do this work early in the morning before the sun is an hour high. To insure their living, it would be well to have grass, such as clover, cut early in the morning when moist with dew, and drop a handful on each plant, planted the evening before or the same morning. This keeps the ground moist, and shades the plant until it takes root, and before any bad effect could be produced upon the plant by lying upon it, the grass or clover dry up as the plant gradually increased in vigor, and in a few days it could scarcely be seen, while by its protective shading, the plant would be green and growing, and capable of resisting the scorching rays of the sun. Where water is convenient to the tobacco field, the hands would after a little practice average four or five hundred plants each evening. Thus ten hands could plant twenty-five or thirty thousand weekly; but the water must be near and easily obtained. In such situations where general irrigation of the field could be made, there is no doubt but the best effects would be produced. If properly irrigated, not too much water, but frequent applications when the earth was dry and wanting rain, the tobacco would grow quick and mature early, two things that invariably produce a fine article, if the weather should prove favorable for the curing.

Here closes this humble effort. If it proves beneficial to the grower of tobacco, the author will feel happy, and rejoice that therein he finds his highest reward.

“Pray, madam, why do you name your old hen Macduff?” “Because, sir, I want her to lay on!”

GREEN MANURING AND MANURES.

BY JOHN F. WOLFINGER, MILTON, PA.

By green manuring we mean the sowing, growing, and ploughing down of some vegetable crop while it is yet *green*, or living and growing, to benefit or improve the soil and its future farm crops. The green manurial plants and grasses used for this purpose may, if necessary, be grown upon one field, and cut off, removed to, strewed over, and ploughed down into another field. But it is always the cheapest and best plan to sow and grow the crop, wherever it can be done, upon the field where it is to be used as a manure.

Preparation of Soil and Seeding for a Green Manurial Crop.

What I have already written will show how and when the ground should be prepared and seeded for a green manurial crop so plainly that I need not say much about it here. It is only necessary for me to say here, in a general way, that whatever a manurial crop may be, we should always use considerably more seed per acre for it than for a grain, grass or pasture crop, so that it may cover the ground with a luxuriant and dense mass of vegetable matter. Many farmers, to save a little money in the start, sow too small a quantity of seed per acre upon their grounds, which, in the long run, is a very serious loss to them. Avoid this error, therefore, carefully, and that also of sowing more seed than is necessary, which is equally bad.

Pasturing of Green Manurial Crop.

And now the question comes up, how long and how much should our green manurial crop be pastured? I answer, “We should never turn our animals upon these crops for the purpose of pasturing them; or, if we do, let them pasture off but little.” Long experience has indeed shown that vegetable matter is more sensibly active as a manure after it has been *animalized*, or, in other words, has been eaten and passed through the body of some animal.

This *animalization* of vegetable matter imparts to it certain proportions of nitrogen and of saline elements not previously possessed by it, and hence its increased activity as a manure. Thus, for example, some very skilful agriculturists are of opinion that a green turnip or clover crop eaten off the ground by sheep or cattle will, in its remains thus intermixed with animal dung, produce a larger after-growth of wheat and corn than the whole of the green manurial crop, if ploughed down, would have done.—But this advantage to the wheat and corn crop can only be secured by letting the crop be pastured off by fat or fattening animals only, in fine condition, and on soils that are not poor in vegetable matter, as poor and young and growing animals will, for manifest reasons, make too poor a dung for the purpose. Such crops, however, may be advantageously eaten off by sheep on light and loose soils, as their treading will render such soils more compact and solid, and also imbed their manure nicely and even—

ly in the soil, and so enrich it. But no sheep or horses, let me add, should ever be allowed to pasture on clover, because they will bite the plants off close to the ground; and when the crown or branched top of the young clover is once nibbled off or injured, its roots will die, and the crop will speedily fail. Hence clover should never be pastured at all the first year, and but slightly, if at all, the second year. The rule of pasturing this and all other green manurial crops with farm animals of all kinds should always be, "On late in the spring and off early in autumn," so that the clover or other crop, whatever it be, may retain a large amount (the main part) of its vegetable matter for manurial purposes. Common sense will teach every man that this is sound doctrine, such as every prudent landowner will appreciate and practically adhere to for his own present good and that of his children after him.

Ploughing Down of Green Manurial Crop.

Johnston, of England, says: "In no other form can the same crop convey to the soil an equal amount of enriching matter as in that of green leaves and stems. When the first object, therefore, in the farmer's practice is so to use his crops as to enrich his land, he will soonest effect it by ploughing them in the green state." Again he says: "The plants ought to be mown or harrowed at once and ploughed in, before they come into flower. The flower leaves give off nitrogen into the air, and as this element is supposed especially to promote the growth of plants, it is desirable to retain as much of it in the plant and soil as possible. Another reason is that, if allowed to ripen, some of the seeds may be shed and afterwards infest the land with weeds." And again, he says: "The stems and leaves of plants are generally supposed to be richest in nutritive matter when the plant has just come into flower." Low, in his valuable work, entitled *Elements of Practical Agriculture*, says: "The period at which the plants should be ploughed down is just when they are coming into flower, for then they contain the largest quantity of readily soluble matter, and have the least exhausted the nutritive substance of the soil." And the British Society for the Diffusion of Useful Knowledge, in speaking of green manures, say:

"The time of the year when they should be ploughed in must, of course, depend upon the nature of the crop, which should always be buried before it arrives at perfect maturity, or otherwise it will rob the land of that nutriment with which it is intended to supply it.

But the work should be done in the heat of summer, or at least early in autumn, while the sun has the power to forward the fermentation—rotting of the crop. The effect, indeed, will greatly depend upon the season, for the process of fermentation is only slight when checked by the want of free communication with the air; and if the weather be cold the power of the manure will be, in a great measure, lost; but if the season be moderately moist and very warm the fermentation will be much promoted, and the crop will be converted, by putrefaction, into a mass of

nutritive mucilage. Nothing short, however, of an *abundant* crop will have that effect, as a large mass decomposes much more speedily than a small one; and if very scanty, the latter, perhaps, may not putrefy at all, or its decomposition will be so very gradual that the land will be very little perceptibly the better; but if such a quantity be turned under the earth as will excite the force of fermentation, there can be no doubt but that it will then be greatly as well as promptly benefited. * * * And there can be little doubt that the crop should be ploughed down as soon as it is in blossom."—(Practical Treatise on Manure, pp. 170, 171.)

A good green manurial crop will form a dense and close mass of vegetable matter, from twelve to fifteen inches high. And this, when ready for the plough, should be rolled down with a heavy roller the same direction that our furrows are to run, and also be rolled in the morning when the dew is on it, as it will then roll down evenly and nicely. And this vegetable mass should be thoroughly ploughed in, so as not to leave any part of it sticking up and out between the furrows, as such ploughing is not only slovenly, but wasteful.

Depth of Ploughing Down.

Green manurial crops should be ploughed down to the depth of three or four inches only—just deep enough to prevent their wastage, and yet near enough to the surface of the ground to be acted on by the solar heat and air, and also afford certain, active, and constant nourishment to the young and expanding roots of our succeeding regular farm crops. Deeper ploughing down than this will, in most soils, exclude the sun's heat and the air from our green manure so much as to retard its decay, and often prevent it from furnishing timely and regular nourishment to our farm crops. Some farmers, however, are in the habit of ploughing down their green manures as deeply in the ground as they can, and the consequence evidently is, that its decaying matter cannot furnish any, or, if any, but very little nourishment to the farm crop, whatever it be, that follows such manuring, as it lies too deep in the ground to do that. Its full beneficial effect cannot be realized until another ploughing of the ground has brought its decayed or nearly decayed matter up within some three or four inches of the surface of the soil.

(Continued in our next.)

THE TIME TO CUT BUSHES.—A correspondent of the *New Hampshire Farmer* says: "Repeated trials on as many different pieces of land, and each trial a complete success, has convinced us that December, the time we invariably do this, is the best season, at which time the growth of the year is evidently at an end. A piece of valuable pasture land of ours, overrun with bushes, which had been many times cut over by a former owner to no purpose, because cut in the summer season, was by us cut over in December, 1862, and to this time, a period of nearly five years, not a bush has sprouted, and the land though moist, is well stocked down to grass."

IMPROVEMENT OF WORN OUT LANDS BY THE USE OF PEAS AND CLOVER.

BY H. K. BURGWINN, ESQ., OF JACKSON, N. C.

There are large bodies of land lying in Eastern and Middle Virginia and North Carolina, which have been so much reduced by continued cropping, planting tobacco, cotton, and sowing oats, as no longer to pay the cost of cultivation, and are "turned out as waste lands." These really still possess a good share of fertility, and, by a very moderate expenditure of labor, and attention to common sense principles of agriculture, may be reclaimed, and have their productiveness increased from 100 to 150 per cent. They can be made truly valuable; and I do not hesitate to say, as the result of my experience, that they will give a greater profit in the course of five years' cultivation than can be derived from any except our rich river lands.

This is a method I have adopted, and by which I have increased the products of such lands from $1\frac{1}{2}$ to 2 barrels of corn to 4 barrels per acre. The increase of wheat is proportionably greater than that in corn. My system of culture is substantially as follows:

If the "broom straw," in which these waste lands always grow up, retains any sap, by which, when turned under, fermentation will ensue, and cause the straw to rot, let the land, *as it is*, be plowed with the largest size plow, drawn by three or four horses running as deeply as possible—say, not less than ten inches—and turning everything under. If the straw has no sap, it will not rot in a year: and in that case, burn it off, and plow as before. If possible, follow each plow with a subsoil plow, and go 6 or 8 inches deeper. This will make the stiff clay, which almost everywhere underlies our land, more open to the genial influences of the sun and air and enable it to get rid of the surplus water of winter, and heavy rains in other periods of the year.

About the middle of June, following, when the weeds are about half grown, and before they have formed their seeds, sow the land broadcast at the rate of a bushel per acre, of any of the numerous varieties of peas among us, except the "blackeyed," which, having very little vine, affords little shade. In all cases, I prefer those which have the most vine and ripen earliest. When the land has much of weeds or grass upon it, turn under the peas with any kind of plow, running not over three inches deep. If the land is bare of weeds, I prefer covering the peas with a large, heavy harrow, running both ways—first lengthwise, and then across the beds. As it is important to give the peas a start over the weeds and grass, I soak them six hours in water, and rub them in plaster of Paris; and, when they begin to leaf and branch, say, when 12 inches high, I sow plaster at the rate of a bushel per acre. This stimulates their growth, and they overpower the weeds and grass.

When about half the peas are ripe—not "half ripe"—hogs should be turned in to trample and cut up the vines, otherwise it is extremely difficult to turn them under. So soon as this can be done, the hogs should be taken off, for the peas are useful for shading the land from the summer's sun—a most important matter in all improvement—and giving to the thin soil a large mass of vine-leaves and other vegetable substances. From experience in the use of both, I think peas but little inferior to clover (to which family, indeed, it belongs,) as a specific manure for wheat.

After this mass of vine has been turned under, you have a "pea ley," over which sow a bushel and a half of wheat per acre, and six quarts of clover seed. Harrow both in thoroughly, and let the work be finished by the middle of October. The return will, of course, depend somewhat on the quality of the "old field," but I venture to affirm, that it will amply repay all labor and outlay, and astonish by the great result apparently from so trivial a cause.

I am familiar with the great increase of crops from the use of lime and clover, and I do not mean to compare the two methods of renovating land as equal; but, where lime is not to be had, there is no application that can compare for a moment, on well drained land, (if it need draining) with plaster, peas and deep tillage. No gold mine is so valuable as a good marl pit. I am, however confining myself to interior districts, where neither lime nor marl can be had.

After the wheat comes off in June following, the clover, if sown early in October, will have grown so as to shade the land pretty well, even on the waste lands I speak of. It should not be grazed the first year, at all; in the February after, top-dress it with all the manure to be had, not forgetting to apply all the *old ashes* within reach. This time of the year, (winter) is best for applying manure in our country, where the hot sun acts so injuriously on a bare surface. The roots of the young clover being protected from hard frosts and sudden changes, by the manure, it shoots forward with the earliest warmth of spring, and smothers all weeds. When weeds mature their seeds, they draw upon the fertility of land equal to most crops. Clover gives a crop equal to any other, and is all returned to the land in droppings of the stock while grazing upon it. As proof of its profit, for three years I have never fed my working horses but once a day on grain or fodder, from the middle of May till the clover fails.—They are turned on the clover-field after the day's work is over, and taken up in the morning in good condition for service. I have never lost one by this management; in fact, they improve from the time they are thus treated, and work better.

After the clover has been on the land for too summers, during which period it has dropped three crops of leaves and stocks, and thereby greatly improved the land, either turn it under as before, in September or October, for wheat, or later in the fall for corn the ensuing year. In the former case, you will find your land as thickly set as before with volunteer clover, which ought to remain as a pasture for the summer, after the second crop of wheat comes off. If corn instead of wheat, be grown, sow peas broadcast among the corn at the last plowing, soaking the seed and rolling them in plaster as before. After the corn crop, do not suffer the land to "lie out." No error can be more opposed to good farming, than that which assumes that land is improved by "lying out" and permitting a crop of weeds to mature upon it. If we had duly reflected, this error would long since have been apparent, in the continued quantity of thousands of acres lying waste around us, *not a whit improved by "lying out."* After the soil has once been brought up by peas, subsoiling, or deep plowing and clover—all within reach of the farmer, even in the interior—it will not again relapse, unless the former barbarous and senseless practice of exhaustion and negligence be again adopted. If lime can be had, even at a cost of 20 cents a bushel, I would in all cases spread it on the land, after the first crop of peas had been turn-

ed under, to the amount of fifteen or twenty bushels per acre. This quantity will greatly benefit the land, and enable the owner shortly to repeat the application of a like quantity.

ON DRAINING---No. 1.

THOROUGH DRAINING.

Allow me to give my views as to what kind of land requires draining. I am one of those who consider that nearly every variety of land will be benefited by draining, but public sentiment has not reached that point yet; so by way of compromise with the young beginner, I will divide land into two parts, dry and wet. The term dry may be applied to land that can be worked in good order in spring, and likewise in the summer's drought; and as we recede from land of this description until we arrive at the marsh or swamp, we have wet land in different degrees, which requires draining. I may say here, for the benefit of the young beginner, that land that is too wet to plough in time, in spring, with a clay subsoil, is generally too hard to plough in summer drought. With respect to open or surface drains, they are principally used in marshy and pasture land, and had best be continued in cultivated land until superseded by thorough drainage, when they may be numbered among the things that were, except for water courses, which should be kept as large as necessary for the flow of water, and as straight as possible to prevent washing out, with a good slope on each side.

Covered or under draining may be divided into two parts: and 1st, as to *Spring Draining*. In draining of springs, the object to be kept in view is to get at the watery stratum, that supplies the spring, and carries off the water in the most efficient manner; but it requires considerable practice and a correct knowledge of the strata to be dealt with—therefore, when there is a large tract to be drained, it is better to employ some competent person to lay out the drains, for a few drains judiciously laid out may effect the purpose, and save hundreds of dollars—there is a great deal of land that would not pay at present for thorough, that would be greatly benefited by spring draining. 2d—*Thorough Draining*.—I differ with the most of my agricultural brethren, who think that draining is not as important here as it is in Great Britain, whilst I assert it is equally, if not more so. I suppose it will be admitted by all that we have more rain in the year here than in that country, and likewise, that our rains are heavier; therefore it is more important to have an underground conveyance, to carry off a part of it, than to let it all run on the surface, and wash out the manure. Let the young beginner examine a newly manured field after a heavy rain, and

he will be able to form some idea of the loss he sustains. It is argued we have more evaporation—I admit it, but we have more baking at the same time—and how often is the clay land farmer thrown behind hand with his labors in the spring in consequence. Then, again, how frequently has he to wait in summer for rain, so that he can plough his land, while his more fortunate neighbor on light soil is going on with his operations—yet I do not wish to be considered as undervaluing clay soils, for I believe when they are brought up by thorough drainage to the point, so to speak, that the operations can be carried on at all seasons, they are more profitable than the more porous soils.

Any thing that lessens labor and saves expense is a gain to the farmer, and thorough drainage accomplishes both—1st, the land dries sooner in spring; therefore the farmer gets earlier to work; and 2d, it does not get so hard in summer, and is easier wrought. In Great Britain, they estimate the saving of one horse in four, or twenty-five per cent.; while, with the smaller number the soil is put in better order. Therefore, the operations of the farm can be carried on with more certainty and less excitement on drained than undrained soil.—But I must stop, lest I tire both you and your readers.

In my next, I will speak of the depth of drains and distance apart.

JOHN BRODIE.

The Potato Rot.

From my own observation and reliable information, I am of opinion that we have never had such a general failure of the potato crop in the vicinity of this city as the present season. The loss in some varieties is entire. The Monitor, Mercer and Peach Blow are generally all decayed. I have one field of 10 acres, six acres of Monitors, two of Pink-Eyes and one White Sprouts. The first, all gone, the Pink Eyes and White Sprouts sound, and on another field of six acres, one half Peach Blows and half Cuscos, the first many decaying and the Cuscos sound except on the low ground. Mercers, from information are all in a very bad condition.

The decay of the potato is general as far as my information extends, for ten or twelve miles north, including my neighborhood, Fox-Chase, Jenkintown, Bustleton, and lower part of Buck county.—Many farmers lose their entire crop of two to three thousand bushels; our loss will certainly reach two thousand bushels. The early potatoes, owing to the skin being fully formed, have escaped.—*Cor. Germantown Telegraph.*

Soft soap should be kept in a dry place in a cellar, and not used until three months old.

PRESERVING SWEET POTATOES.

St. Louis, October 16, 1867.

To the Editors of the Maryland Farmer :

Will you allow me through the columns of your valuable paper to enquire of your many subscribers how they put up sweet potatoes that they will keep all winter without decaying and being injured by frost. Any one who has had experience in that line will oblige by giving me the desired information through the columns of your paper. W. M. M.

In answer to the above we reproduce the following modes of preserving potatoes, as adopted by the several parties.

One correspondent gives the following cheap and simple plan :

Make a pit in the ground, three feet deep below the surface, 12 feet long and 7 wide : place refuse planks on the bottom and walls, then build a structure over the pit, something like an ice house ; cover it with straw and earth, expressly to prevent the admission of cold air. A fire should be made in the pit, previous to placing the planks on the bottom, till everything therein is thoroughly dry. Now spread dry tags on the floor ; pour in potatoes, which should be dried in the sun a day or two before, and cover them with dry tags. An opening may be made in the southern side, large enough to afford access to the potatoes. Never open this except in good weather. Such is our mode of wintering roots."

Another mode :

"I use dry sand to put them up in—it don't matter how the sand is dried, in a kiln, in a log heap, or in the sun, so it is dry, that is all that is required. I prefer drying in a log heap, as it costs at least four times less, and is just as good. And a family that has a little room with a stove in it, may keep a box or two of eight or ten bushels, without much inconvenience. The boxes must be raised six or eight inches from the floor, and they must not be nearer than four inches to the wall. Fill the box with potatoes, and then put in sand, cover the potatoes with sand. There is a good deal said about kiln-dried sand, but it is all fudge. I have also known them kept in buckwheat chaff. In order to keep potatoes with success, there must be a thermometer kept in the room. The mercury must not sink below 40° ; if it does, the potatoes will chill and rot ; it also must not rise above 60°, or they will grow. I have never lost any of my potatoes only by letting the room get too cold. A thermometer only costs a dollar, and every man ought to have one."

Another offers the following plan :

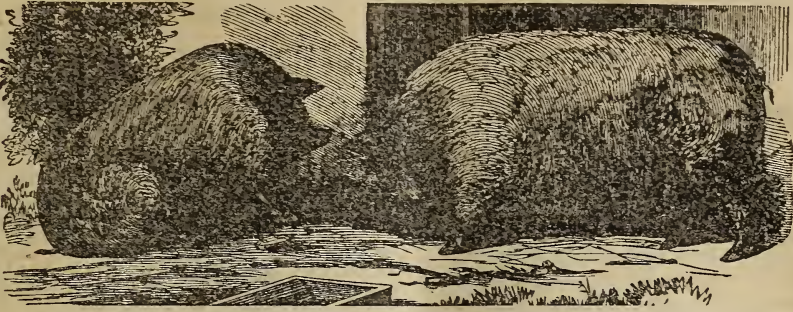
"We never dig our potatoes until a light frost has singed the leaves, then we run a plow on each side of the bed, draw down the ridge thus formed in the alley, and throwing all the potatoes from both beds

or rows into the central alley ; collect them without bruising, and take them in a two-ox cart to the potato yard, when they are banked on high, dry land ; scraping the circular basis of each bank or pile, clear of mud or trash, emptying the potatoes in these clean circles, and piling them up until no more will stand in a coniform shape ; cover them round with cornstalks, like a thatched conical roof, so thick and close as not only to exclude the air, but the earth, where they remain until used ; one or more hills or banks, containing precisely a week's allowance, thickly covered with earth patted with the hoe. In spring these banks which have been kept for the table during summer, are opened, and, if sprouted, the sprouts are carefully nipped off and the potatoes remove to a dry cellar or loft, spread with dry pine leaves, or any other kind of dry straw, where they will become candied when baked, and far more delicious than when first dug."

How to Get up a Farmers' Club.

In almost every agricultural paper from a distance, there is a paragraph appropriated to the encouragement of Farmers' Clubs, and the best mode of starting them. In all these, without an exception, so far as it is now remembered, the blunder is committed in embracing in the programme, *a subject for special discussion* at each meetig. We say this is a blunder, from the fact that it looks too much like a debating society, where the members are expected to meet trained and "crammed" to enter upon the discussion. In Clubs, composed of farmers, this formality and preparation should be wholly ignored. What the farmer desires and needs, is a social gathering to consist say of a dozen members, three-fourths of whom would at least attend each meeting, to assemble once a week at each other's houses, to converse and interchange facts and experiences relative to there business. There should be no written by-laws, or rules. Of course there should be some "refreshments" provided on these occasions, as this will be found to have quite a marked affect in causing members to be punctual ! Care, however, should be observed not to permit this to go beyond a certain moderate limit ; otherwise it will, instead of adding to the value and permanency of these neighborly gatherings, undermine and destroy them, and to the members prove hurtful rather than beneficial. There should be a President and Secretary—the former to preside at the—refreshment table, and the latter to pick up, cull out, and prepare carefully the essence of the conversations during the evening for publication. This is about what, in brief, a Farmers' Club ought to be.—*Germantown Telegraph.*

Song of the lark—We won't go home till morning.



WHITE CHESTER PIGS—BRED BY GEO. B HICKMAN, WEST CHESTER, PA.

CHESTER WHITE HOGS.

A writer thus speaks very highly, and we think justly, of this breed of swine. For the general purposes of the plantation, we doubt if any other breed can be found to compare with the Chester, although we have had a strong partiality for the Berkshire hog, which is excellent for family pork. The writer says:

"Some persons have supposed that in order to have a superior breed the stock must be imported. Why cannot we originate as good stock in this country as in England, if we pay the same care and attention as is bestowed there? The Chester county hog originated in Chester county, Pennsylvania, hence its name. The Chester is a hardy hog and is distinguished for large size (some of them when well fed attain to a weight of 600 to 700 pounds,) very rapid growth, early maturity, and great propensity to fatten; also remarkable for beauty and symmetry of form, and docile disposition, and are very quiet. With an equal amount of food, the Chesters will probably make more and better pork than any other breed of hogs—for facility of fattening they are unequalled."

The following is a brief history of this hog, and their peculiarities:

"They originated in the county of Chester, State of Pennsylvania. The first impulse to the improvement of Swine in this county was induced by the introduction of a pair of fine pigs brought from Bedfordshire, England, by Captain James Jefferis, and put upon his farm on the Brandywine, near West Chester, the county seat, in 1818. Some of our enterprising farmers seeing these fine pigs, were induced to commence an improvement of their swine, and by a cross with these, their progeny, and others of the best hogs of the county, and by continuing a careful selection and judicious crossing for a number of years, have produced the most desirable, best formed, good sized, easily fattened and best bacon hog now in this, and perhaps any other country."

"The thorough-bred are peculiar for being always white; they are peculiar for being very quiet and peaceable, and they are peculiar for being in good condition for slaughtering at any time after being six weeks old. They are short-legged, broad on the back, and have short heads and noses; very quiet, easily fattened at any age, and have often weighed, at from 16 to 18 months old, over 600 pounds."

Yoking Oxen.

Perhaps many think the manner of yoking working cattle is a matter of small account, which is an error. Our American custom is to yoke in such a manner that the work is all done by the inertia of the body, giving a "dead set" pull. Natural history informs us that their chief strength is in the neck. The Spanish method is to yoke by the head. The yoke is fitted to rest on the head just back of the horns; the forehead padded for protection, and ropes bound around to make the yoke fast.

From a careful examination I think this manner is preferable to ours. They do more work, and do it easier.

During the war, much teaming was done, hauling cotton from Texas into Mexico. By working together, the Texan teamsters were satisfied the old Spanish custom of yoking, which is still in vogue in Mexico, was superior to theirs, and adopted it.—If any of our farmers doubt the theory, I would suggest they break a few yoke of steers to work in that manner, and give them a trial at some agricultural fair.

Another Spanish custom is to have a rope braided through the nostril. Whether this is agreeable to the cattle or not, I cannot answer, but it is certain the unruly and vicious are rendered quite docile and attentive to their business.—A. J. W., in *N. H. Farmer*.

Wanted—A fresh covering for bells that have pealed.

BREEDING SOWS.

Every farmer, says the *Germantown Telegraph*, is aware of the great liability to loss in getting a litter of pigs through the first two weeks of their lives.—The sow not unfrequently devours them as soon as dropped, or if not, they are more or less liable to be killed by the mother lying down, before the little grunTERS have acquired sense or strength enough to avoid the danger. The *Agricultural Review* gives some sensible advice in regard to the management of breeders, from which we extract the following, suggesting farther that the litter should, after two or three weeks, be allowed considerable out of door liberty. It does them good to frolic on the grass and learn to stick their little shoe hammers in the ground.

“The food of the sows should be varied and moderately salt; abundant enough to keep them thriving, yet not sufficient to fatten. It is well to give them charcoal occasionally, and a trifle of sulphur. The slops of the house are good feed. All this tends to keep the appetite in a healthy state and to destroy the tendency of the swine to devour their young. They should not be closely confined—a small yard at least should be attached to their sleeping pens for them to go into at will. Change of quarters, especially when near the time of giving birth to their young, is apt to work injury, and and should be carefully made if necessary. They should be supplied with a great abundance of straw or other suitable bedding, and allowed to work it down somewhat fine and compact, and into a bed of their own liking. In winter time it requires a warm pen, and ample bedding and care to raise the young pigs. If poles are around the sides of the pen high enough from the floor to give room for the pigs underneath, it will frequently save them from being lain on and killed, as the sow cannot press close enough to the wall to injure them, and she is not so apt to kill them in other positions as in this one.

“During the first week in the age of the pigs the mother should be disturbed as little as possible.—Especially strangers should not approach her. Give her warm drink, and but a small quantity of food. If she is doing well and is quiet, and takes care of her young, ‘let well enough alone.’ After a week’s time you can feed more, and when the pigs begin to come to the trough and eat, you will have ample space to dispose of all the spare meal and butter-milk your premises afford.”

How to DESTROY ANTS.—Having seen some inquiries how to get rid of ants, I will say to such that a few years since I saw it stated in your paper that arsenic would kill them. Last year they were very troublesome in our pantry, and I put arsenic in sweetened water and set it in their way, and two or three days after there was not one to be seen.—They have also troubled one of my bee-hives a few years past, and this year I put a dish of it on the ground, near the hive, and a few days after examined, and found none, and have seen none there since.—ASA HOWES, in *Country Gentleman*.

Hydraulic Rams.

In answer to a recent call for information on this subject, in the *Cultivator and Country Gentleman*, J. L. DUFFIE, Esq., of Maryland, writes that he has a Hydraulic Ram which has been in use twelve years—capacity of spring 18 galls. per minute, fall from reservoir to ram 8 feet, ram house 5 by 5 feet inside, built of stone and roofed. A copper strainer at the reservoir, with quarter inch holes, prevents anything getting into the drive pipe, small objects carried in, in this way, often deranging the operation of the valves. Six inches from the connection of the supply-pipe with the ram, there is a cut-off to prevent the water from running out of supply pipe if disconnected for repairs of ram. The water is elevated 70 feet, 550 feet distance. During 12 years the packing has been renewed once, the valves three times, and the escape valve rod once. It supplies water for dairy, bath-room, garden, stock-yard, pantry and kitchen, and Mr. D. says he would not be without the conveniences thus afforded for \$1,000. He adds:

“I think the difficulty your correspondent finds is that the air becomes exhausted, and if such is the case, the ram will continue to work without forcing any water through supply-pipe. To avoid this I had a tapering brass screw, with square head, put in top of air chamber, and one opposite the point where supply-pipe connects with ram. When I am informed the ram has stopped (as my farm hands term it,) I go direct to the reservoir, and stop the end of drive-pipe, by removing the strainer and putting on a cover. Then I go to the ram house, shut off the water in supply-pipe, take out the two screws, remain long enough to let the drive-pipe and air chamber become exhausted of water. I then replace the screws, turn the cut-off in the supply-pipe, go to the reservoir, remove the stopper, and put on the strainer, and off it goes as prompt as ever. In extreme cold or hot weather this occurs—more frequently I find in cold weather. I think the great difficulty with most rams is they are badly put up, and frequently owned by inexperienced farmers of no mechanical turn, and they are, as a consequence, neglected, won’t work, and get in bad credit.”

If people planting orchards would give orders to mark the north side of the tree with red chalk before they are taken up, and when set out to have the trees put in the ground with their north side to the north, in their natural position, a larger proportion, it is said, would live, as ignoring this law of nature is the cause of many transplanted trees dying. If the north side be exposed to the south, the heat of the sun is too great for that side of the tree to bear, therefore it dries up and decays.—*Builder*.

ORCHARD GRASS.

This is one of the most valuable and widely known of all the pasture grasses. It is common to every country in Europe, to the north of Africa, and to Asia as well as to America. Its culture was introduced into England from Virginia, where it had been cultivated some years previously, in 1764. It forms one of the most common grasses of English natural pastures, in rich, deep moist soil. It became, soon after its introduction into England, an object of special agricultural interest among cattle feeders, having been found to be exceedingly palatable to stock of all kinds. Its rapidity of growth, the luxuriance of its aftermath and its power of enduring the cropping of cattle, commend it highly to the farmer's care, especially as a pasture grass. As it blossoms earlier than timothy, and about the time of red clover, it makes an admirable mixture with that plant, to cut in the blossom and cure for hay. As a pasture grass it should be fed close, both to prevent its forming thick tufts and to prevent its running to seed, when it loses a large proportion of its nutritive matter and becomes hard and wiry. All kinds of stock eat it greedily when green. * *

On being fed very close, it has produced good pasture after remaining five days at rest. It is suited to all arable soils. Four bushels of seed are requisite for an acre when sown alone, or half this quantity when sown with clover. The seed is very light, weighing not more than twelve or fourteen pounds to the bushel. It should be cut early for hay. * * * *

Orchard grass is less exhausting to the soil than rye grass or timothy. It will endure considerable shade. In a porous subsoil its fibrous roots extend to a great depth. Its habit of growth unfits it for a lawn grass. Its seed weigh twelve pounds to the bushel, and to sow alone, about twenty-four pounds to the acre are required to make sure of a good crop. It should not be sown alone except for the sake of raising the seed. It is worthy of a much more extended cultivation among us.—*Flint*.

LARGE WHEAT CROP.—The *Cecil Whig* of September 28th, says that Mr. James McKane, of the 4th district of that county, raised the present season 33 bushels of wheat per acre on ten acres, weighing 64 pounds to the bushel. This field was stubble turned in. On another lot of ten acres seeded after removing a crop of corn last fall, he raised 25 bushels per acre, weighing 59 pounds to the bushel, the latter lot having been stacked out and was damp, which accounts for the light weight. This wheat was clear of cockle, cheat and all other kinds of trash. The first lot was sold at \$2.50 per bushel, for seed, the purchasers taking it as fast as it ran through the fan. These crops will challenge Maryland for their equal.

Blue Grass—Its Origin.

A short time since the Farmers' Club had before it for discussion the subject of the various kinds of grasses, their management, &c., &c. In the course of his remarks, Dr. SPURR stated that he had never been able to arrive at any satisfactory account of the origin of this valuable grass, which has made our section so famous the world over. The subject was again brought up a few days since by several farmers, and on being appealed to for his opinion, Dr. SAM'L. MARTIN, of Clarke, one of the oldest and best informed farmers in Kentucky, stated that in the party accompanying DANIEL BOONE to Kentucky, in 1769, was an Englishman whose wife had tied up in the corner of her handkerchief some seed which she had brought from England. Locating at Boonsboro', the wife planted these seed (which were blue grass seed) in her garden. The grass increased so rapidly that she pulled it up and threw it into a neighbouring lot. Here it took root and flourished, and the next year Dr. MARTIN's father procured from the woman a bushel of the seed, for which he paid \$2.25, and this, the Doctor asserts, is the way it was introduced here. The idea that it was growing in this State before BOONE's visit would seem to be opposed by the fact that the forests were too dense for its growth. If any of our friends have other explanations, we would like to publish them, for certainly the question ought to be authoritatively decided.—*Home (Ky.) Journal*.

A Convenient Smoke House.

I have used and have seen others use various contrivances for smoking bacon, such as smoking in an oven, under a hogshead and under a box, &c.—The neatest thing I have ever tried for this purpose is got up in the following way. Having a Farmers' boiler, which, by the way, is one of the most useful things a farmer can have about his premises—I took the kettle out, then found a cask just large enough for one end to fit in the kettle's place by removing the chime hoop, I then put cross sticks through the cask for the meat to rest upon, placed the cask in position, stopped the draft in the smoke funnel, and the apparatus was finished. It will be seen that the cask will want no heads, the top being covered with a loose head or board. The fire is put in the arch of the boiler the same as when used for boiling purposes. The apparatus is neat and safe as respects any danger from fire.—J. S. BIXLY, in *Maine Far.*

WHEAT CHAFF, says a correspondent of the *Country Gentleman*, "is a very valuable dressing for meadows. Its effects would surprise those who have never seen it tried. I do not understand the reason of it. It should be put on early in the fall, evenly spread, and not very thick."

THE SOUTHERN AREA.

Very few who talk at the North and in foreign countries about our "Southern States," have any clear, distinct idea of the vastness of territory and the diversity of production implied by that geographical expression. A few plain facts grouped together from an indiscriminate mass of statistics, scattered through voluminous gazetteers and elaborate reports, may serve to supply solid material for the right appreciation.

The fifteen sovereign commonwealths of the South, present the following dimensions and numerical strength of inhabitants:

	Area.	Population.
Virginia.....	61,352	1,596,083
North Carolina.....	56,704	992,667
South Carolina.....	29,385	903,812
Georgia.....	58,000	1,055,327
Florida.....	59,268	146,439
Alabama.....	50,722	964,296
Mississippi.....	47,156	791,395
Louisiana.....	41,255	709,433
Texas.....	237,504	601,039
Arkansas.....	52,198	435,437
Tennessee.....	45,600	1,109,847
Kentucky.....	37,680	1,165,713
Missouri.....	67,320	1,173,317
Maryland.....	11,124	687,034
Delaware.....	2,120	112,218
Total Square Miles.....	851,448	12,240,047

Of the above, all but the last four were embraced in the Southern Confederacy, with an area of 733, 144 square miles, and a population of 9,101,765 souls, the portion that remained under the Union flag counting 118,304 square miles and 3,138,282 inhabitants.

A single glance at the relation between space and people, will convey a swift understanding of the case to any political economist accustomed to scan the statistics of our Eastern States, and still more of crowded Western Europe. Still, there is a vague idea in the minds of the vast majority who are not familiar with "Dixie Land," that the sparse settlement is owing to the fact that far the greater portion of this magnificent domain is unproductive and unfit for human habitation.

Never was a more mistaken notion harbored.—With the exception of a few swampy tracts along the coast and rivers of the South, the whole land is apoplectic with undeveloped abundance. Every metal and almost every mineral; every cereal; nearly every fruit and every kind of wood and textile plant; all species of live stock, fish and fowl, most known to common use, and some not found elsewhere, fill this great storehouse of America. Where can more luscious Northern fruit be found than in Delaware? What region of middle France or Germany can exhibit more beautiful and fertile fields than Maryland, so lovely that the Western and New England troops who rushed through them in the very fever of war-like rage, felt their hearts captivated by their beauty, and thousands of them vowed to return, if they might, when war was over, to find a home in that new Canaan?

In Virginia—our classic land of patriotic memories the unrivalled corn and wheat harvests of the Shenandoah Valley grow within a few hour's ride of rich deposits of coal and several of the useful and precious metals. The same may be said of North Carolina, Tennessee and Georgia, three States that repeat New England and New York at the South with the difference of a far finer climate and a more prolific soil. South Carolina draws from her very

swamps one of the most desirable products adapted to human subsistence, and the richness of her rice crops is rivalled by the quantity and quality of her yams and melons.

As we descend toward the cotton region, Kentucky, Mississippi and Arkansas still retain some of the best crops of the temperate zone side by side with the beginnings of a tropical growth, and boast their flocks, herds, fish and game as well. Alabama and Louisiana with not one-tenth part of the surface tilled that might be made to bring forth an hundred fold still in the midst of poverty and inundation can offer the most valuable fibre for human comfort seen in the markets of the world. Florida; overgrown with magnificent timber yet capable of producing one and all the other things that we have hinted, from the apples and peaches of the high latitudes, to the orange, the lemon, the banana, the pineapple and pomegranate of the equator in the rarest perfection, her lake and ocean coasts swarming with delicious finny spoil, turtles and shell fish, and the interior fragrant with spices and flowering shrubs of rare medicinal and industrial value, renews to living reality the dream of the fabled Atalantides—the enchanted isles of antique adventurous romance. But Texas—an Empire in herself,—the framework and ground plan of a dozen noble States,—where German, Frenchman, Spaniard or Italian may, in different districts, fancy himself beside the vines or in the shade of his native land, and where foreign toil and native ingenuity and enterprise work hand in hand with a perfect harmony of demand and supply—what shall we say of so majestic a domain?—Why, there alone are room and opulence for all the surplus life that Europe could send to our shores in the next 20 years!

If we sum up, then, in one contemplation, all the area and abundance thus inviting the presence of "the hungry generations," how weak, nay, even wicked, seem the complaints and forebodings that narrow speculation throws in the way of our splendid future! But in order to fill up the outlines of the picture thus sketched in our presence, with the bloom of culture and the gay movement of busy millions, there must be a wise system adopted here and at the South to set these facts, with all their details, constantly before the migrating masses in this country and abroad.

The Government has a high duty to perform in this matter, and press and people should second it on all sides.—*New York Mercantile Journal.*

IMPORTANCE OF USING THE BEST SEED.—There is no crop the farmer grows, says the *Prairie Farmer*, that can be more improved in the yield and quality of the seed used, than the wheat crop. Why should our farmers be satisfied with seven to fourteen bushels of wheat to an acre, while in the best districts of England, from 32 to 36 bushels is an average yield. Too little attention is given to the selection or raising of seed. Farmers are too apt to wait until seeding time to select their seed, and then go to the general bin, or to the nearest mill, and get the best they can secure, and often sow with all the impurities, without washing or winnowing. Much could be done by practicing these, but much more by the selection and growing of the grain, with special reference to seed. Every farmer could in a short time reach results most satisfactory, by selecting the best, largest and fullest heads, and propagating from them; in this way much has already been done in the improvement of seed and grains.

The Poultry House.

DISEASES OF POULTRY.

A correspondent of the *Maryland Farmer*, over the signature of a "South Carolina Subscriber," describes a malignant disease among poultry, which is now ravaging the States of South Carolina, Virginia and Pennsylvania, and asks for a "Practical and efficient" remedy for it. An experience of twenty years in raising game fowls, has convinced me that there is but one *practical* remedy for this disease, (if it is a disease.) Its regular appearance, *only* during the wet season of August and September, induced me to search closely for the *cause*, that I might be better able to apply a remedy, and from circumstances connected with its appearance, I was led to suspect the fowls were poisoned by something they found to eat at this particular season. Observation has confirmed me in this opinion. I have not as yet been able to detect what it is they eat, but believe it to be a poisonous fungus or mushroom. The suddenness of attack and the rapidity with which the disease runs its course, precludes the successful administering of a *specific*, though we had one in hand. For the fowls frequently go to roost with a full crop, in apparent perfect health, and drop dead before day. In this case, an "ounce of prevention is worth a pound of cure," and as soon as the disease makes its appearance, confine the fowls in a dry house, and it will be immediately arrested. As soon as there is a change of weather, they may be permitted to have access to their usual walks with safety. While upon this subject, I would caution your readers against the too free use of salt, as recommended in the *Maryland Farmer*, for the cure of the gapes. Salt is a powerful styptic, and a deadly poison to all kinds of fowls.—DUSTY MILLER, *Southern Cultivator*.

Onions and Poultry.

A subscriber informs us that he saved large numbers of his poultry within the last few months in feeding with onions finely chopped. The fowls were attacked with dysentery or sore throat. He took the hint from the following which we published in the April number of the *Maryland Farmer*, and now reproduced for those interested :

"Scarcely too much can be said in praise of onions for fowls. They seem to be a preventive and remedy for various diseases to which domestic fowls are liable. Having frequently tested their excellences, we can speak understandingly. For gapes and inflammation of the throat, eyes and head, onions are almost a specific. We would, therefore recommend giving fowls, and especially young chicks, as many as they will eat, as often as twice or three times a week. They should be finely chopped. A small addition of corn meal is an improvement."

CHICKEN CHOLERA.

A correspondent of Leake County, Mississippi, in the monthly report of the Department of Agriculture, says :

In the May and June report, 1867, I find on page 216, an inquiry about "chicken cholera." The disease has been here for the last twelve months. I have used "Barton's preventive for hog cholera," (omitting the salt,) and find that it acts like a charm. Mix this medicine with corn-meal two or three times a week. Any medicine that will prevent "hog cholera" will prevent the "chicken cholera." The spirits of turpentine is a cure if taken in time, and no doubt would be a preventive. These two preventives, given in moderation, I recommend ; the turpentine in quantities of from two to five drops to the chicken.

Another correspondent says : For the last two years my chickens have been dying of cholera ; even the turkeys have died the same way. When I notice the hens begin to droop and look sleepy, I give them three or four tea spoon's full of strong alum-water, and repeat the next day. I also mix the feed, (say corn meal,) with strong alum-water, feeding twice a day for two or three days, afterwards, once a week. Since I have practiced the above I have not lost any.

A correspondent from Spring Valley, Iowa, sends the following remedy for chicken cholera : "Take, say two eggs, a table-spoonful of finely pulverized alum, and sufficient quantity of flour to make a thin paste, and force the chicken or turkey to swallow a portion of the mixture, and there are two chances to one that it will recover. I have used this remedy for two years with good success. I have also found it necessary, as a preventive, to use more or less alum in there feed, once a day, when the disease prevails. Fowls should never have access to slop or swill-tubs, or any other kinds of sour food.

CHICKEN CHOLERA.—The symptoms of this disease are a high fever, feathers ruffled, the skin turns black, the eyes are closed, and the patient will not move unless driven. Death usually takes place in about three hours. I have lost about 100 chickens this winter, besides turkeys, ducks and geese. I tried all the remedies I could hear of, but without effect, until the following came to my notice : Take corn meal and shorts in equal parts, wet the compound, and mix with lime as strong as they will eat it. For turkeys, geese and ducks, corn soaked in lime water will effect a cure.—*Cor. Rural Amer.*

LEAD ENCASED BLOCK TIN PIPE, advertised by the Colwell, Shaw & Willard Manufacturing Co. of New York is recommended by the most eminent medical men of the country, for health and economy. See advertisement.

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BY J. J. THOMAS.

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The "Rural New-Yorker" \$3—The "Southern Cultivator" \$2, and the "Maryland Farmer" \$1.50 per year, will be furnished at \$5 for the three. Thus for \$5 can be secured one first-class weekly and two standard agricultural monthlies. Subscriptions can commence at any time.

PRESERVING POTATOES.—A correspondent of the *Scientific American* says that he has tried the following method of keeping potatoes for years with complete success, though in some instances the tubers where diseased when taken out of the ground:—"Dust over the floor of the bin with lime and put in about six or seven inches deep of potatoes, and dust with lime as before. Put in six or seven inches of potatoes and lime again; repeat the operation until all are stored away. One bushel of lime will do for forty bushels of potatoes, though more will not hurt them—the lime rather improving the flavor than otherwise."

POOR LANDS OF VIRGINIA--FERTILIZERS.

A correspondent in Virginia writes us in the following despairing manner. He propounds a great many questions rather difficult to solve, as the character of his poor land is unknown to us. If no one of our readers can throw any light on the subject, we will attempt a reply in our next issue; whether satisfactory or not. We know, however—though McLane's Worm Specific is excellent in its way—that it has no enriching properties for *poor* mother earth:

In Virginia we have a superabundance of poor land and idle niggers.

Those persons who are settling amongst us from States north of us buy our best lands, passing by with scorn and contempt our poor, worn-out lands. What are we to do with these exhausted fields?—Thousands of our people would be willing to part with one-half or two-thirds of their lands if thereby they could enrich the remainder. We have no manure; clover won't grow on our impoverished land. What are we to do to make a start? I can see but one way, and that is to buy fertilizers.

You have, Mr. Editor, in taking charge of the *Maryland Farmer*, set yourself up as general instructor on all subjects connected with agriculture. I desire to enrich next year ten acres of land to bring fifty bushels of corn to the acre. How much guano and what kind? How much bone-dust, and whose? How much plaster? How much salt? In a sentence, what proportion of each fertilizer should be applied to make a poor field rich enough to produce fifty bushels of corn to the acre. Give this information and you will benefit thousands of owners of exhausted acres.

A learned professor of Philadelphia, in the September number of the *Farmer*, tells us that he made a poor farm rich by applying 1,000 or 1,200 pounds to the acre of "phosphatic guano slightly superphosphated." I immediately turned over to the quack part of the *Farmer* to see who had the "phosphatic guano slightly superphosphated" for sale. I read McLane's advertisement of his Worm Specific. I didn't think that was it. I then read Coe's, Turner's and Moro Philips' and Reese's Pacific guano, said to be made of dead fish and mud. None of these were "phosphatic guano slightly superphosphated." I gave up in despair.

Who, Mr. Editor, can furnish us with this valuable fertilizer? It is exactly what we want on our poor, exhausted lands.

OLD VIRGINIA.

WOOD ASHES FOR MANURE.—The Maine Farmer knows a farmer who went into the soap-making business some years ago, for the purpose of securing the ashes, after having been leached, to apply to his land. He owned a large farm, the soil being chiefly a clayey loam, and any one visiting the farm now, who was acquainted with it before the owner began to apply the ashes, would be astonished at the results they have accomplished. He applied them at the rate of 150 to 200 bushels per acre, to different crops, and in every conceivable way.

Large Sale of Thorough-Bred Stock at Public Sale.

We call attention to the public sale of the valuable and thorough-bred stock of John O. Price, Esq., which is advertised for sale on the 7th of November, at Cockeysville, on the Northern Central Railroad. The catalogue embraces a large number of superior mares and horses, which were selected by Mr. Price with great care for breeding purposes, among which are many noted in the annals of the turf for great speed. Also, Kentucky Mules, Steers, Alderney, Ayrshire and Durham stock, Southdown and Shropshire sheep, with a large stock of agricultural implements. This stock is so well known throughout the country that we need but refer to advertisement in another column. Col. Sam'l H. Gover, auctioneer, 84 Baltimore street, Baltimore.

Saving Cabbages.

A correspondent of one of our "exchanges," asks for a good method to preserve green cabbages through the winter; and the editor calls upon others for information.

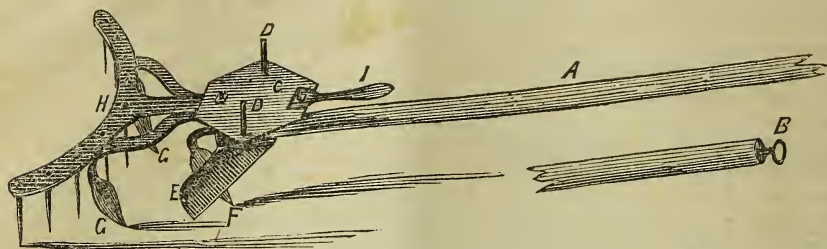
The plan we have adopted for a number of years seems to answer the purpose as well as any with which we are acquainted. This we have made known on several occasions, and it may not do any harm to repeat it. It is simply this:

Select a dry part of the garden—dig trenches of sufficient depth to receive the cabbage roots and stalks up to the head—into these trenches transplant the cabbages, heads up of course—fill in the dirt carefully about them up to the heads—plant four short posts, two of them being higher than the others to give a pitch to the roof—nail shingling lath, or strips of old board from one post to the other, and another board half way up—lay upon this a number of bean poles, and upon these throw straw, corn-fodder or bean-haulm, protecting also the sides—and your cabbages will keep in good condition until May.

Where there is a fence, only two posts will be necessary, that being employed as the apex of the cover or roof.—*Ed. Germantown Telegraph.*

KEEPING CIDER SWEET.—The Utica Herald states that A. G. Williams, of Hampton, Oneida county, has a method of preserving cider worthy of being generally known. Allow the cider to work until it has reached the state most desirable to the taste, then add grated horse-radish in the proportion of a tumbler and a half to the barrel of cider, and shake up well. This arrests further fermentation, and after remaining a few weeks may be racked off in clean casks, and the air excluded by closing the bung.—Cider preserved in this way has a pleasant, agreeable flavor.

GARDEN CULTIVATOR.



GARDEN CULTIVATOR.

This is a new implement, patented in 1867. We have never witnessed it in operation, and therefore cannot speak of it knowingly. The inventor speaks of it as follows:

"It combines four distinct tools, viz: A knife edge or hoe, a single plough-share, a pair of shares acting as a double shovel, and lastly, a rake or harrow, each of which has a shank which slips into or is placed on the handle, and is secured there by bolts, so as to be readily attached and detached for combined or separate use. Arrangements are further made for weighting the tool to give it sufficient penetration, and for the attachment of a draught-strap when desired to draw upon it as a plough.

Used, in combination, the knife edge cuts down the weeds the succeeding plough-shares stir the soil, and the rake or harrow levels the ground and collects the trash.

It can be used as a hoe or as a rake, or be used as a plough, drawing it by the handle or with a draught-strap.

A few minutes will suffice to learn its various parts, and with the wrench, which accompanies the tool, to attach and detach them for separate or combined use.

In the spring the ground should be spaded or broken up by horse-power, and, if practicable, well harrowed, after which this implement will render gardening a light, rapid and even pleasant work." Mr. W. T. Smithson, of Baltimore, Md., offers State and County Rights for sale.

LITTLE CHILDREN.

God bless little children!
Day by day,
With pure and simple wiles,
And winning words and smiles,
They creep unto the heart,
And who would wish to say them nay?

They look up in our faces,
And their eyes
Are tender and are fair,
As if still lingered there
The Saviour's kindly smile!
So very meek they look, and wise.

We live again our play-time
In their play;
Their soft hands lead us back
Along a weary track—
The pathway of our years—
Unto the time when life was May.

O! when my days have ended,
I would rest
Where little children keep
Their slumber long and deep;
My grave be near the little mounds
I know that God hath blest!

Geo. Cooper, in the Round Table.

Exhibitors at the York Fair.

The *True Democrat*, of York, in noticing the late Fair held at that place, thus speaks of the display made by our friend A. B. Farquhar, of that city:

"PENNSYLVANIA AGRICULTURAL WORKS.—A. B. Farquhar, Esq., the energetic and enterprising proprietor of the Pennsylvania Agricultural Works in this borough, was credited with being the exhibitor of about one half the agricultural implements at our late fair. This collection required about forty distinct entries, embracing nearly everything needed to stock a first-class farm or agricultural store. Among the articles we particularly examined, were the iron tripple geared horse powers, threshing machines and separators, polished steel cultivator teeth and plow handles."

The same paper thus endorses our old horticultural friends, who avail themselves so often of our advertising columns to extend their business:

EDWARD J. EVANS & Co.—There are few persons in this latitude who are not acquainted with this enterprising firm and the nature and character of their business. We have visited their large and extensive nurseries, both at the southern end of the borough and on the farm about two miles distant from town, on more than one occasion, and a finer selection of fruit and ornamental trees we have never seen as that grown and cultivated by them. The farmer and horticulturist can make no mistake in the kind and variety of trees which they desire to select, for when they visit the grounds of Messrs. Evans & Co. they will find them ready to their order.

THE AMERICAN STOCK JOURNAL.—We are in receipt of this valuable Monthly for October, well filled as usual, with original articles, from some of the best writers in the country. This enterprising Journal seems to meet a want that has long been felt by Farmers and Stock Breeders in this country.

The proprietors have secured the services of one of the ablest and most experienced Veterinary Surgeons in the Union, to answer, gratis, through the JOURNAL, all questions relating to sick, injured, or diseased horses, cattle, sheep, &c.

And as a special inducement to new subscribers, they make the following liberal offer: Every new subscriber, for 1868 received by the 1st of December, will receive the October, November and December numbers of 1867, free, making over 500 large double column pages of reading matter in the 15 numbers, all for the low price of \$1.00. Address N. P. BOYER & Co., Gum Tree, Chester Co., Pa.

Horticultural.

PLANTING APPLE ORCHARDS.

We have long been under the impression, brought to it merely by observation, that as a rule the trees in our apple orchards are planted too distantly apart. Many farmers look upon the space usually occupied by orchards as almost so much waste. They say, we get so little fruit from the ground taken up by the trees, and we cannot cultivate the orchards, as we should like, from injury to the roots, &c., so that we are forced, on the score of economy to abandon apple raising. Now, practically, an orchard should be an orchard only. Except for grass, it should be left uncultivated, after the trees have reached say about four inches in diameter. We can see no reason why a good crop of grasses should not be continuously produced for a quarter or a third of a century, without disturbance. A top-dressing of manure once in two or three years, we know, has produced fine yields of grass annually of two crops. The trees have little or no influence upon the crop of grass; indeed if they possess any, it is in affording a heavier swath under the trees.

Hence, instead of setting out young orchards thirty and thirty-five feet apart, reduce the distance to about twenty feet, in the quincunx form; and if at any time the trees should threaten to become a little crowded, prevent it by additional pruning. This is our theory.

The leading purpose of an orchard should be to obtain fruit; next the crop that will do the least damage to the trees. This is grass. Grass, however, will not do any damage to the apple trees, but the contrary. It keeps the soil moist and of a uniform temperature—protecting the roots in summer against heat and draught, and in winter against the severe effects of alternate thawing and freezing.

It should also be remembered, in setting out young orchards, to get trees as low-branched as possible. They will generally not grow so high, while the low boughs will protect the trunk against the intense rays of the sun in the summer months, which are frequently very injurious to the health and productiveness of the trees.—*Ed. Ger. Telegraph.*

PEAR TREE BLIGHT.—On this subject a fruit-grower writes:

"My remedy, as practiced, has been to under-drain the land, make the soil lighter and more porous about the roots, scrape off the black bark to that which is alive, and wash the body repeatedly during the summer with caustic soda wash or strong soap suds, although caustic soda wash is the best. In so doing I have had marked success in promoting the health and vigor of the tree, and in the perfection and quality of its fruit."

ABOUT PEARS.


Although the pear trees never bore better than this season, yet, owing to the rains and continued damp weather, nearly or quite one-half of the fruit has cracked and been rendered worthless, and a considerable portion of the rest will not, for want of sun at the proper time, mature. We find that several varieties, which have been highly recommended, are not worth cultivation, at least upon our premises. For two or three years they do well enough, but after that they will not ripen, and even those that become soft are tasteless. Among these are the Duchess d'Angouleme, Glout Morceau, Louise Bonne de Jersey, Vicar of Winkfield, Nova Poiteau, Washington, Winter Nelis, Maria Louise, Kingssing, &c. Dearborn's Seedling, which we fruited this year for the first time, is of no account. The Summer Julien has never failed in giving us an abundant crop of excellent fruit, ripens from the 25th July to 15th August, and is one of the very best early varieties grown. We are surprised that it is not more generally cultivated. For several years we have had upon a single dwarf of large size at least a peck of good fruit, of fine size from the French St. Michael, and we regard it as one of the best pears to grow on quince stock. How it would answer on pear stock we cannot say, but we think there is scarcely any doubt of its success.

There are some varieties which should be more generally cultivated, and others highly recommended that should be rejected. It is a great disadvantage to growers in attempting to raise fruit from sorts with high sounding names and professional endorsements to have them turn out to be worthless. Growers should have but few varieties for summer, autumn and winter, and it will be easy to make the selection, in which we will endeavor to assist them.—*Ed. Germantown Telegraph.*

The Way it Came About.

Old Adam mounded his lonely walk,
And nothing found to please him;
He sadly needed one to talk,
To tickle and to tease him.

So when the Lord a rib besought,
To make another human,
"Yea, Lord," said he, "take all I've got,
And fix me up a woman."

 Medical Authorities have announced that not less than one-fifth of the entire population of the United States are afflicted with Neuralgia in some form. Surely the man who can safely remove such a vast aggregate of pain is a great public benefactor. Such is Doctor Turner, of Boston, in Massachusetts. His "Universal Neuralgia Pill" is pronounced, on all hands, to be an entirely harmless and perfectly certain remedy for this most torturing of all known diseases. See advertisement in another column.

The Dairy.

ON CHURNING.

A talented Frenchman once wrote a pamphlet upon the proper manner of blowing out a candle; and I suppose the reader will consider his book and the heading of this article to be parallel cases, and exclaim, "Why, everybody knows how to churn."—But I think a careful examination will show that everybody does not know how to churn, or rather how to produce butter from cream, or we should have less growling from the "gudewife" because the butter would not "come." All who have had any experience in the matter know the apparently perverse nature of butter; at times it will come (that is, separate from the buttermilk) in a few minutes, and sometimes will not come at all. This and many other curious facts may be made clear by a little careful investigation into the matter, which, with thy permission, friend editor, I propose to make.

The butter exists in the cream in the form of minute globules surrounded by a thin film of casein, and to obtain the butter we must break this film. This may be done in two ways, either by agitating it, or by heating it. There are several conditions which influence the time required for separating the butter by churning; and if these are thoroughly understood and complied with, there will be little or no trouble in getting the butter to come. The main and most important condition is the temperature of the cream when it enters the churn; there seems to be a certain medium established, and it seems to make but little difference whether the temperature of the cream is above or below it, there will still be the same trouble in breaking the casein which envelopes the globules of butter. The cream when poured into the churn should not have a higher temperature than 55° nor lower one than 53°; when put in at this temperature it will rise from five to ten degrees during the operation of churning.

Another important condition which does much to influence the time required for separating the butter is the state of cream when it is put in the churn; if sweet, it will require much longer than if sour,—and it is an established fact that before butter can be made the cream *must be sour*, and if it does not reach this state before it goes in the churn, it must and will afterwards, or no butter will be obtained.—Some of those who always take the premium at our country fairs, always churn sweet cream to obtain it, and I have often had this thrown in my teeth when advocating the above doctrine, but that does not controvert my argument, for before the butter separates it does get sour.

A thermometer hanging in the room where the

cream is kept will indicate the temperature of the cream at the time, and this may be raised or lowered to about 54° after it goes into the churn, by adding hot or cold water, as the case may require, *while the churn is in motion*.

The time occupied churning has a great effect upon butter, and also upon the temperature of the cream in the churn: if the cream is at 65° when put into the churn, very fast churning will raise it too high, and soft, light colored butter will be the result, especially in warm weather; in cold weather the motion should be faster, in order to keep up the proper temperature. I have known entire churnings to be thrown into the hog tub because one or two of these necessary conditions were not complied with. Even when the churn fails to separate the butter, we have one unfailing agent left in the form of heat, which never fails to burst the films of casein, but will not produce an article fit to be called butter—but it can be put to uses known to every good housekeeper.

Some are in the practice of churning the whole milk; in this case it should have a temperature of at least 65° before going into the churn. Of the comparative economy of the two methods, churning the cream and churning the whole milk, I will treat in my next.—*Cor. Germantown Telegraph.*

SULPHITE OF SODA FOR MILK.

To the Editors of Maryland Farmer :

As by far the greater portion of milk used in cities and large towns is obtained from the country, any means of preventing the putrescent changes to which it is liable during the hot weather are especially valuable.

Let me premise by stating that the agent to be used is "*Sulphite of Soda*." This article has been used with perfect success by the "*Purveyor of Milk*," in London.

Milk has in its composition two elements, one of which, *casino*, putrefies in twenty-four hours after milking in hot weather; the other, *Buteric acid*, gives to it that peculiar disagreeable acidulous odor. By the addition of Sulphite of Soda to milk freshly drawn the separation of its constituent parts is prevented, so that there can be no fermentation nor putrefaction.

Winter, of course, is not so favorable a time as summer for establishing a critical test.

Judging therefore from all experiments and collateral evidence, one teaspoonful of saturated aqueous solution of the "*Sulphite of Soda*" added to each gallon of milk will preserve it from change for many weeks in the hottest weather.

All medical men know that Sulphite of Soda in this proportion is quite harmless, and in the milk unperceptible.

I also suggest the use of Sulphite of Soda externally in cattle diseases, and as an internal remedy it will be found of great use.

MEDICUS.

MARL IN PRINCE GEORGE'S COUNTY, MD.

I am glad to see by a late issue of the *Gazette*, that you are drawing public attention to the deposits of rich shell marl in the vicinity of Marlborough. Whilst you are rendering this service to our county, I am sure it will afford you pleasure to direct public attention to the fact, that there are also rich marl beds underlying most of the land lying on either side of the Piscataway Branch. We have tested this marl and found it rich in mineral qualities. It has been found not only to be a quick but also a permanent improver of land.

The word marl is an old Saxon word, meaning "marrow." It was thus called by old writers, because, we are told, as the marrow is the richest part of the animal body, and most essential to its well being, so marl possesses the richest and most essential properties of productive soil. In ancient times it was much more extensively used than at the present day, and in many of the old countries for a number of years, it was the only fertilizer in use. It was then found to answer all the requirements for good cropping, and the writer thinks it would be far more remunerative in its results, and much less expensive than most of the adulterated fertilizers now furnished at enormous prices.

Many of the marl deposits lying on either side of the Piscataway Valley are very accessible, and those less so, could very easily be made so by a small outlay. Many of the farms in that section are too large for the times, and doubtless might be purchased in part, at very moderate figures, considering their intrinsic value. Visitors in that section have often been known to express surprise at the wonderful fertility of the soil. Because, as they would express themselves, "you made no fuss about your lands," "you don't brag as some people do," hence our surprise to find such a soil.

Now, we say in all candor, and with no desire whatever to attach undue importance to our lands, that if capitalists will direct their attention this way they will find all we say to be true, and more than true.

It is true, also, that our people, as a general thing, have been so cramped in their circumstances by recent events, that they cannot lavish upon strangers that hospitality which was wont to be their custom in days gone by; but, as things are, our best efforts will be made to give all requisite information to those in earnest and really desiring to make judicious investments in land, or seeking to make long leases.—*Cor. Marlborough (Md.) Gazette.*

The curry comb should not be neglected; its use on all kinds of neat stock and horses is a great preventive of disease and vermin, and is productive of health.

Clay on Sandy and Gravelly Soil.

A neighbor of mine, Mr. H., has a piece of land of a gravelly and sandy soil. It is warm, quick land, and will produce good corn and grain by putting on a large supply of manure every year. I have been acquainted with the land for twenty-five years. Near it there is a bank of clay, which is very convenient for carting. For the last six years Mr. H. has been dressing this hungry soil with this clay, with remarkably good effect. He says he had rather have a hundred loads of clay than a hundred loads of manure on that land. The manure may produce the largest crop one or two years, but the clay is more permanent in its effects, and in four or five years will produce more than the manure.

I saw the land and examined the crops on it last week, and believe Mr. H. is correct in his statements. The corn had been badly injured by the worms, but the oats were splendid. He said that he could keep the land in good heart with the clay dressing. It should be plowed up in the fall and exposed to the operation of frost during winter. It then becomes fine, is easily shoveled, and readily mixes with the soil. He tips up a load in a place, spreads and plows it in. As there is plenty of such light soil in New England, and as I believe such beds of clay or other suitable material are more frequent than is generally supposed, I have thought this statement of my neighbor's success in the improvement of his field might benefit others. Wherever the situation is such that twenty loads per day can be carted by one team, such dressing will prove a good investment. We cannot much longer subsist without replenishing our lands in some way.

O. FOSTER.

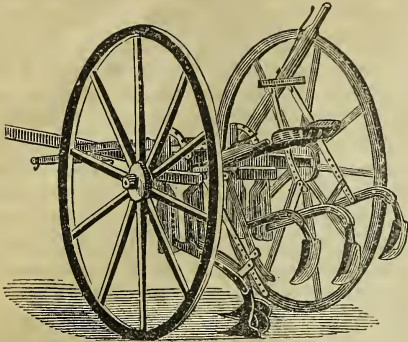
Tunbridge, Vt., Aug. 11, 1867.

REMARKS.—Such brief hints from actual farm practice are the cream of our agricultural papers. Much has been written about manures, and much more must be written before the subject of plant nutrition is fully understood. The mechanical effect of a dressing of heavy soil upon a light one, or of sand and gravel upon a heavy soil, is more readily understood than is the chemical effect often witnessed from the mere commingling of soils. To farmers who are so situated as to be unable to buy, or to make the manure necessary to keep up the fertility of their fields, the subject is one of interest.—*Ed. New England Farmer.*

IMPORTATION OF RARE BIRDS AND STOCK.—S. Taylor Suit, Esq., of Upper Marlboro, Prince George's county, Maryland, has recently returned from a trip to Europe. He brought with him a great variety of rare and beautiful birds to adorn the lawns and miniature lake at his new and elegant residence in Spalding's district. It is said the collection is probably the finest ever seen in this country, embracing English Pheasants, California and South Pacific Quail, White Swann, Golden Pheasant, Silver do., Carrier Pigeons, Booby birds, Bulfinches, Canaries, and a number of smaller birds.

The same gentleman has imported from Germany a number of pigs and a cow and bull.

Phifer's Improved Wheel Corn, Cotton and Potato Plow and Cultivator, for Two Horses.



There is on exhibition at the Maryland Institute Fair, now being held in this city, an improved wheel corn, cotton and potato plow and cultivator for two horses, which strikes us as an implement of great utility. Not having witnessed its operation in the field, we subjoin the following high endorsement from Paschall Morris' "*Practical Farmer*," which always speaks from the book:

"The manufacturer of the above named machine having offered us one on trial, we have, within a few days past, had a thorough test of it on our own farm, and must admit, that as an efficient pulverizer and cultivator of the soil, it exceeds anything we have ever seen. We took it to a corn-field—a very stiff clay soil, which had been under-drained the past fall—and with once going over, it was put into a condition we could hardly have believed possible. We first tried the steel cultivator teeth, stirring two rows at a time, as it is designed for. These went down about eight inches, pulverizing the clay to a very fine degree, and making it most thoroughly mellow and loose to that depth.

For the several years we have been conducting an agricultural paper, we have embraced every opportunity to urge *deep ploughing and thorough pulverization*, and to keep it before the farmers, that (quoting the motto we have chosen for our monthly), "*deep tillage is manure*."

The implement for accomplishing great results in this way is, undoubtedly, PHIFER'S; and while as a mere labor-saving machine it can be safely recommended, doing two rows at once, it would be very faint phrase, to say only this, inasmuch as it not only does the work of four or six men, but brings about results which no hand labor of any number of men could possibly perform with hoes or other hand tools—or, indeed, by any common implement worked by horse, that we know of.

It is so constructed, under the new patent, that either the two, or four steel plows can be used, or any combination of two or more of them with the cultivator teeth, for any specified work. Having two horses, and the driver being seated, he can run it much closer to the rows, and with more accuracy than any implement with a single horse. We first ploughed towards the row, with the four plows stirring the soil, tearing everything up, then levelling down and disintegrating all the loose earth with the cultivator teeth; and afterwards, made another adjustment, where the field was rather weedy, by turning the plows *from the row*, and throwing all in middle. This was all done in a most thorough manner.

The plows are attached to a mounted frame in such a way that they are allowed to rise and fall to correspond with

the inequalities or undulations of the ground, and at the same time are rendered capable of being raised above the surface, when not required for use. They can also be readily adjusted to a greater or less distance apart, as well as higher or lower. The adjustable points of the machine are,

1st. In the width of the track of the wheels and its adaptability to rows, varying from 2 feet 7 inches to 4 feet 9 in.
2d. In the depth to which the teeth may be run, from 2 to 12 inches.

3d. In elevating the teeth above ground when not in use.

4th. In regulating their distance apart.

5th. In varying their number.

6th. In changing cultivator and plow teeth, and converting it, when desired, into a gang plow.

7th. In altering the position of the plow teeth so as to hill or leave the surface level, as may be desired.

These changes are effected in a few seconds of time.—The uses to which this machine may be applied are, cultivating corn, potatoes and other roots, and the cotton crop—in fact, anything planted in rows. It sells at \$65—and is economical wherever the saving of labor is of importance, and large crops desirable.

An addition has been made to it also, of a broadcast grain or seed-sower, in front and where the covering is done by the four plows in the rear.

Another advantage about this implement is, that in case of suddenly coming across rocks or other obstructions, the only parts liable to break are, the wooden pins which hold the teeth in their places."

It is manufactured by A. L. Brearley & Co., Eureka Agricultural Works, Trenton, N. J.

TWO MONTHS FOR NOTHING.—LOOK AT THIS OFFER.—We have received the *American Agriculturist* for October. We wish that all our friends could see this paper. We know of no way in which so large an amount of truly valuable, interesting, and instructive reading matter could be giving to a family at so small a price as the subscription to the *Agriculturist*. Each number contains 32 to 40 large quarto pages, and 30 to 50 fine engravings, many of them very costly and beautiful. Here, in this October number, we find, in addition to the great amount of valuable information, hints, suggestions, etc., more than 30 engravings, several of which are among the most expensive ever found in an Illustrated Journal. This number is of itself really worth a year's subscription. The cost of the *American Agriculturist* is only \$1.50 for a year, in advance, or four copies for \$5. The publishers offer that valuable journal *free* for the remaining two months of this year to all *new* subscribers for 1868, (Vol. 27,) who send in their subscription *during this month of November*. We advise all our readers to secure it on these terms. It will be sure to benefit all fathers and mothers, and interest and instruct the children. Subscriptions should be sent to the publishers, ORANGE JUDD & Co., 245 Broadway, New York City.

CLUBBING.—We will furnish the *American Agriculturist* and the *Maryland Farmer*, both *one year* for \$2.50 to all **NEW** subscribers.

"MARYLAND FARMER."—An old correspondent writing from Norfolk, Va., remitting his subscription money, thus speaks of our Farmer:

"Please find one dollar and half for one years subscription to your valuable monthly, a paper that every farmer and gardener ought to take. I have never received a number since taking it that was not worth a years subscription,

The Florist.

Soils for Potting.

Those who are novices in the cultivation of plants in pots, are often troubled when they see the directions to use some particular soil or compost, given in the works on gardening. Various formulas for these composts are given, and some of their ingredients are mentioned by names which are little known in this country. These minute directions are frequently sufficient to deter those who think they are essential to success, from cultivating many plants. The fact is, that most plants will grow in any good garden soil, by which we mean a light loam enriched with vegetable matter and well-decayed manure. Sods from an old pasture stacked up and allowed to decay, will decompose into a compost which will suit the great majority of plants, and may be easily varied to suit particular ones by the addition of sand for those requiring a poorer soil, and by the use of some top soil from the woods to suit those requiring more vegetable mould. The sods and surface soil of a rich pasture, with about one-fourth of well-decayed manure like that taken from an old hot-bed, mixed together and left in a heap for some months, with an occasional forking over, will give a compost which will answer for all ordinary plants. Run it through a coarse screen to remove sticks and large lumps, and preserve under cover for use.

LAYERING SHRUBS.—It is often to us a subject of surprise, says the *Germantown Telegraph*, to find so few persons, especially those residing in the country a distance from nurseries, who attempt to increase their stock of shrubbery by layering the branches. Almost every variety of shrub can be thus multiplied. Even among those who do this it is not often that the queen of flowers, the rose, is thus treated. It is usually propagated by sticking cuttings from the new wood in August and nursing carefully through the winter. By laying the growing branches, however, it is by the succeeding season a bloomer; and this too can be done so easily, that is without the use of a sash or hot-bed usually resorted to with the cutting. In laying down, take a sharp knife and slit the part of the branch that enters the ground, from one joint to another, then cover with two inches of soil, and fasten down with a forked stick. But not only roses, almost every kind of shrub can be thus propagated. And the person who does not know how to do this, should go without them all the days of his life.

ONANCOCK, ACCOMAC COUNTY, VA.—We will make an effort to give the desired information to our correspondent R. T. J., in our next or subsequent number of the *Farmer*.

The Grape Culture.

Some of our most intelligent and experienced grape-growers are coming to the conclusion that there can be no definite rules laid down for the culture of out-door grapes. This is the wisest thing we have yet seen in regard to this question. It comes up very much to what we have long believed. There are certain general rules to follow which no one neglects who knows anything about grape-growing; but after that each one must decide for himself the soil, exposure, trellis, variety of grape and general culture. After a fair trial he will soon discover the best grapes for his soil and the best management. If he follow the multitude of directions to be found in voluminous communications in some of our horticultural journals, or innumerable books which make the subject a specialty, he will be sure "to put his foot in it," and have his labors for his pains. We have some "crack grapes" that have been planted for years in carefully-prepared places, that give no indication yet of either growing more than about a foot or two a year, or of bearing, though they stand side by side other vines that are vigorous growers and productive bearers.—*Ed. Ger. Telegraph.*

PRESERVING GRAFTS.—In the *Saturday Evening Post*, of Philadelphia, "Cosmo" relates that a good many years ago he saw a New York State farmer experiment with scions, and this was his practice: Cutting a large, sound potato in two halves, as fast as his scions were cut from the tree he thrust the heels to the depth of about three-quarters of an inch into the cut side of the potato—each half receiving some fifty scions. The bundles were then wrapped in the leg of an old pair of woolen pantaloons and laid away in the cellar for the winter. In the spring they were grafted, and nearly all grew well. If any one will take the trouble next spring, when apple trees are in bloom, to cut a twig, bearing, say half a dozen blossoms and as many leaves, thrust the cut end into a large sized, sound potato, place the potato in a pot of earth, barely covering it, moisten occasionally, and watch the result, he will very likely argue afterwards that there is something more than moonshine about a potato's preserving grafts.

KEEPING GRAPES THROUGH THE WINTER.—Joseph Cope says: "We are in the habit of keeping grapes for common use during the winter in the following manner: Take clean, small boxes, pick off the bunches of grapes carefully, and pack them in dry grape leaves. Keep the boxes in a dry, cool place, being careful to not let them freeze. We generally have grapes till May."

BIG PIGS.

A correspondent in Buckingham Co., Va., writing us on business, thus alludes to the big pigs in Pa. :

"When the winter sets in, and I have more leisure, I intend writing you for the FARMER—how we do things hereabouts—which I confess is quite bad, in comparison with some things of a like character, see my friends in Pennsylvania do. As an example, I have experimented with a couple of pigs. They have not wanted for attention since they were farrowed, which was the 2d April last—they are the admiration of all who see them. They will weigh nett 225 or 230, if dressed, to-day. But what is that to the Chester Pigs I see advertised occasionally in The Farmer, at the same age dress 600 or 700 lbs. Now, Mr. S. Sands Mills, my old sober, truthful friends wink their eyes very fast, when I read them such way off in Pennsylvania doings,—and sometimes they come out, saying we cannot possibly do so here in "Dixie." I claim to have raised the largest hog ever raised in this county, my boar Gen. Beauregard. He weighed dressed 572½ lbs. when 30 months old. If those who raise the Chester Pigs tell the truth, I must have some cost what they will, and I will make money out of them."

GOOD YIELD OF WHEAT IN GEORGIA.—Mr. N. P. Patton and Capt. Wm. Smith informs the *Macon Times*, Geo., that their wheat crop turned out full 30 bushels to the acre, the berry being full and plump. We are satisfied wheat can be made a remunerative crop in this section. The fault is not in the soil but in the time and mode of seeding. Those who have wheat crops this year are fortunate, and can better stand the short corn crop. Wheat, oats, rye and grass are good, but many farmers depend entirely upon corn for food and bread. The result of this season should admonish them of a more varied crop, when, if one fails, the others make up the deficit. Now is the time to begin for your next year's crop, if you intend to sow fall wheat. Get good seed, thoroughly prepare your ground, and put in with a drill, as experience has demonstrated that drilling is better than broadcast sowing.

LITTLE PLAID SUN-BONNET.

Little plaid sun-bonnet, what do you hide,
Down in the grass by the sunny wall side?
Any short ringlets half out of curl?
Any round forehead as pure as a pearl?
Any blue eyes with a laugh bubbling over?
Any red mouth closing on a red clover?
Is it the wind makes you dance up and down?
Or is it a fairy head under your crown?

O, Earth is bright, by the glad summer kissed!
Millions of roses might scarcely be missed;
Acres of butter-cups, growing so gay,
Cause not a sigh when their gold drops away,
Yet to my heart how your charms were destroyed,
All your fresh meadows how wintry and void,
Earth, should you lose from your beauty and pride,
Just what a little plaid bonnet can hide.

Sherwood's Cotton-Seed Planter.

From the Transaction of the New York Farmers' Club of July 1867, we clip the following :

The gentleman who exhibited it remarked that a few months ago a call was made through the Farmers' Club for a machine to plant cotton seed, and this machine was the result of that call. Owing to the lint on the cotton-seed and its tendency to pack it is one of the most difficult of seeds to operate in a machine. This machine handles the seed by means of sharp hooks inserted in a broad belt, filling one end of the hopper-box, the hooks being set diagonally across the belt in sections, and coming in immediate contact with the mass of seed they are caught by these hooks, carried upward over a cylinder, and dropped into a funnel, and then conveyed to the ground. The loaded hooks pass in immediate contact with a revolving brush, which brushes back all seed not held by the hooks, and when the seed retained by them have passed over the cylinder another brush discharges them from their position.—This machine plants the seed just as it comes from the cotton gin. It is easily drawn by a horse or mule, and will plant from six to nine acres per day. It opens the furrow, drops the seed, and covers it at the same time. This machine was patented on June 5, 1866, and is manufactured by N. B. Sherwood, of Millville, N. Y.

Plowing Clubs Again.

The editor of the *Marlboro' Gazette* thus laments the failure of his efforts to organize a Plowing Club in his district, to which we alluded in our last :

The Plowing Club proposed in the *Gazette* a few weeks ago proved a dead failure. Only one man joined the club. Various excuses were given for not entering the list to compete for the prize of being the best plowman. One man said it *harrowed* his feelings to think of work in hot weather. He was a *rake* of the first water. Another said he wanted no *share* in the plow, preferring to lay on his beam-ends.

The war on the *weeds* was more successful, and many lots bear evidence of a clean shave. Jack Frost on Monday night entered the field, and in one or too more rounds he will win the sweepstakes.

MARYLAND MARL DISCOVERIES.—The recent discovery of a large deposit of animal and shelf marl in Prince George's county, Maryland, turns out upon careful analysis to be of greater value as a fertilizer than any other known marls. In fact, it is asserted by competent judges to equal the best grades of guano. The remains of immense sea turtle and other leviathans of the deep have been exhumed, as well as vast quantities of shells of a hitherto rare and comparatively unknown species.—*Wash. Chron.*

Ladies Department.

"DON'T STAY LONG."

How many a loving heart utters the refrain of the following lines, "Don't stay long!" There is nothing of poetry in the phraseology, but there is in the touching manner in which the words frequently finds voice—in the "yearning tenderness," fond hopes and deep sympathy of which they become the imperfect interpreters. His experience in the poetry of life and love must have been barren indeed who does not find these lines thrill like the echo of cathedral music to his heart of hearts:

A look of yearning tenderness
Beneath her lashes lies,
And hope and love unutterable
Are shadowed in her eyes,
As in some deep unruffled stream
Are clouds and summer skies.

She passed to early womanhood,
From dreamy, sweet girl life,
And crossed the rosy threshold, but
To find herself a wife;
Oh, gently should he lead her steps
Along the path of life!

And as she clasped her small white hands
Upon his arms so strong,
How often, like a summer sigh,
Or a sweet pleading song,
She whispers, with a parting kiss,
"Beloved one, don't stay long."

It's almost always on her lip,
Her gentlest parting words,
Sweet as the fragrance from rose leaves
When by soft zephyrs stirred,
And lingering in the memory
Like songs of summer birds.

And in his heart they nestle warm,
When other scenes amid;
He stays not till she weary grows,
And her fond eyes are hid,
In tears which lie in bitterness
Beneath each veiling lid.

And oh, how many hearts are kept
By that love-uttering song!
There's scarcely one who on life's waves
Is swiftly borne along,
But what has heard from some dear lips
Those sweet words—"don't stay long."

THE WIFE AND WHAT IT IS TO BE ONE.

Upon this subject some of our contemporaries have indulged considerable sentimentality, but few of them ever come down to the "plain proposition." In a couple of journals before us are some sensible observations, and if Benedicts and all other interested gentlemen will pay some attention to them, and study to correct the faults pointed out as we "run them in" this column, there is some hope of considerable reformation in the world. There is a "heart-hunger" in the true wife which only the tender care and enduring watchful love of him she calls "husband" can appease; take this from her and life is aimless and objectless for her; home for him a dreary and desert place. Give her this, and the bright sparkle of happiness enlivens all around; and to the husband no spot on earth so cherry, none so dearly loved as "home, sweet home."

How many husbands treat their wives with constant and tender care for their happiness? How many who do not make it unpleasant for their wives to ask for money? How many who do not shrug their shoulders when a trip to the sea-shore and mountains is mentioned? How many who do not return from their business at night cross and disagreeable?

How many husbands who spring to their feet whenever there is an opportunity to save a step for the wife? How many seek daily and hourly to add to the happiness of the one whose happiness they have declared to be so essential to their own?

How many who do not begrudge the expense of servants, who think to take home the little appliances that can make a housewife's work light, who plan for recreations and amusements, who praise the taste and care which make for them so attractive a home? How many husbands could pass the test of interrogatories like these?

The fact is six men out of ten treat their wives shamefully. Instead of that tenderness for her which marked the first burst of their interest, they are apt to be sour, petulant and imperious. They make little less than slaves of their wives.

They compel them to ask for money; they feel that they must frown down every plan for pleasure, and, least of all, ever think to speak in praise of that which the wife has done for their happiness. The lives of most husbands are one long train of grumbling and fault-finding. They are blind to the happiness of the one whose life is to them a never-failing joy and inspiration. In many cases they are more courteous and pleasant to the wives of their neighbors than to their own.

There never was a man who did too much for the happiness of a woman, and never did a man devote his thought and care to the tastes of a true woman who did not reap a rich harvest in return. It is because wives are slighted and neglected that homes are made so unpleasant.

Women lose all heart and drag out sad and unpleasant lives. Men who promised all sorts of good things, turn upon their reiterated vows and crush the hope and heart of a life that might be to them a never-failing source of joy.

WOMEN AND MARRIAGE.

I have speculated a great deal on matrimony. I have seen young and beautiful women, the pride of the gay circles, married, as the world says, well. Some have moved into their costly houses, and their friends have all come and looked at their furniture and their splendid home for happiness, and have gone away and committed them to their sunny hopes, cheerfully and without fear. It is natural to be sanguine for them, as the young are sometimes carried away with similar feelings. I love to get unobserved into a corner and watch the bride in her white attire, and with her smiling face and soft eyes meeting me in the pride of life, weave a waking dream of future happiness, and persuade myself that it will be true. I think how they will sit upon the luxurious sofa as the twilight falls, and build gay hopes, and murmur in low tones the not now forbidden tenderness; and how thrilling the allowed kiss and beautiful endearments of wedded life will make even their parting joys, and how gladly they will come back from the crowded and empty mirth of the gay to each other's quiet company.

I picture to myself that young creature, who blushes even now at his hesitating caress, listening eagerly for his footsteps as the night steals on, wishing he would come, and when he enters at last, and with an affection as undying as his pulse, folds her to his bosom. I can feel the tide that goes flowing through the heart, and gaze with him upon the graceful form as she moves about in the kind offices of affection, soothing all his unquiet cares and making him forget even himself in her young and unshadowed beauty. I go forward four years, and see her luxuriant hair put soberly away from her brow; and her girlish graces resigned into dignity, and loveliness chastened with the gentle meekness of maternal affection. Her husband looks on with a proud eye, and shows the same fervent love and delicate attentions which first won her; and her fair children are grown about them, and they go on, full of honor and untroubled years, and are remembered when they die. — Washington Irving.

[Original.]

DOWN BY THE LAKE.

BY TOCH.

I.

Here's where the lilies grow
Pure as the drifted snow;
And, the Fairies come at night,
When the moon shines calm and bright;
And they dance, as the music swells
From the clashing lily-bells.

Down by the lake.

II.

Maud, the sweetest lily of all,
Whose voice on the ear like music doth fall;
Dwells by the shore—fit mate for the Fairies!
And, little reck's she, that her lover tarries
Just thro' the wood, and is watching her now
As she bind' th a chaplet about her brow,

Down by the lake.

III.

A chaplet of lilies,
Of beautiful lilies,
She wreath'd about her brow;
Then, glancing beneath her,
Through the waters, to greet her
There cometh a maid—or is it a vision now!
Down by the lake?

IV.

But hark! "Maud—Maud"—
At the sound, how she bounds across the green sward
'Twix lake and wood; and, speeding to meet her,
Comes Love. Ah! what is there, that's sweeter
To the Conquering Knight, who hath won the prize,
Than to bask in the light of his lady-love's eyes
Down by the lake.

LICHESTER, August 5th, 1867.

A YOUNG LADY IN A "FIX."

The *Louisville Courier* of a late date says that one of the most annoying, yet ludicrous accidents, which will happen in the best of families, occurred on Sunday, not over a thousand miles from that city. A dry goods clerk had an engagement to take his lady-love out buggy-riding. Early in the morning he appeared before her father's door with one of those spider-like vehicles which are probably constructed with a view of ascertaining how light a buggy can be made, and at the same time be serviceable.

The lady is sweet sixteen, beautiful, and just a little bit of what is termed "fast." She is full of life, fun and frolic, and is decidedly *en bon-point*, weighing about one hundred and forty-five pounds. As the young gentleman drove up, his lady-love was standing on the top step at the front door, with her venerable father, who had his gold specs elevated on his forehead, in order to get a distant view of his future son-in-law.

Adonis jumped out of the buggy preparatory to assisting the young lady in, but she suddenly took one of those strange freaks to which the dear sex are all subject. The buggy was standing about four feet from the steps, and considerably below the step upon which stood the young lady.—She probably wanted to convince her lover that she was not clumsy if she was fat, and thought this would be a good time to show him her agility. Be that as it may, she gave a jump and landed in the centre of the buggy. If she had stopped there, all would have been well; but, alas, the thin boards of the bottom of the buggy, unable to stand the pressure, gave way, and the young lady continued her descent.

There was a piercing scream; a plunging horse with a young man holding to him; a bundle of muslin in the buggy, and two little gaiter boots pointing to within six inches of the ground under it. Paterfamilias rushes to the rescue and detached the horse from the buggy. He then got up on one side, young man on the other, and they attempted to raise

the young lady up. "O, stop, stop! you are killing me," she cried. The boards had broken in the centre, and the long sharp splinters extended downwards, and when they attempted to raise the young lady out of her predicament these sharp splinters would catch in her. Did you ever see a wire mousetrap? If not, go and get one, stick your finger through the entrance tunnel and try to pull it out. You will then understand the sad fix that our young lady was in on Sunday morning.

The old man comprehended the situation in a moment.—He told the young man to get down and break the splinters off. Young lady screamed: "O, don't!" and young man wouldn't. At this stage of the proceedings a practical neighbor came up with a hatchet, and the young lady was soon extricated from her unpleasant situation, and disappeared behind the front door.

DRAW IT MILD.

(IN IMITATION OF TENNYSON.)

The sun is in the sky, mother, the flowers are springing fair,
And the melody of woodland birds is stirring in the air.
The river smiling to the sky, glides onward to the sea.
And happiness is everywhere, oh, mother, but with me.

They are going to the church, mother—I hear the marriage bell;

It rises o'er the upland, it haunts me like a knell;
He leads her on his arm, mother, he cheers for faltering step!
And she clings closely to his side, she does, the demirep.

They are crossing by the style, mother where we so oft have stood,—

The style beside the thorn-bush, at the corner of the wood;
The boughs that oft have echoed back the words that won my ear,

Now bend their blossoms o'er him as he leads his bridal fair.

He will pass beside the stream, mother, where first my hands he pressed,

By the meadow where, with quivering lip, his passion he confessed,

And down the hedge-rows where we've strayed again and yet again;

Yet he will not think of me, mother, his broken-hearted Jane!

He said that I was proud, mother; he said I looked for gold;
He said I did not love him—that my words were few and cold;
He said I kept him off and on, in hopes of higher game,
And it may be that I did, mother, but who hasn't done the same?

I did not know my heart, mother, I know it now too late;
I thought that I without a pang could wed some nobler mate!
But no nobler suitor sought me, and he has gone elsewhere,
And my heart is gone, and I am left to wither in despair.

Now lay me in my bed, mother, my head is throbbing sore;
And, mother, prythee, let the sheets be duly aired before;
And, if you would do pleasure to your poor, desponding child,
Draw me a pot of beer, mother, and mother, draw it mild!

The Tale of a Purp.

The following touching lines, we presume, are by the author of "The Snow, the Beautiful Snow"—or somebody else.

Oh, the pup, the beautiful pup!
Drinking his milk from a china cup,
Gamboling round so frisky and free,
First gnawing a bone, then biting a flea.

Jumping,
Running,
After the pony;
Beautiful pup, you will soon be Bologna!

Oh, the pup, the playful pup!
With his nose in the air, and his tail turned up,
Was thrown one day in the dogman's cart,
And almost broke the narrator's heart,
When he was picked up and "kissed for his mother,"
As he Howled,

Growled,
Scratched with his feet;
Beautiful pup, you are now mince meat!

CHOICE GEMS.

Marriage.

Marriage is the strictest tie of perpetual Friendship, and there can be no Friendship without Confidence, and no Confidence without Integrity; and he must expect to be wretched, who pays to Beauty, Riches, or Politeness that regard which only Virtue and Piety can claim.—*Johnson.*

What is the World to them,
Its pomp, its pleasure, and its nonsense all?
Who in each other clasp whatever fair
High Fancy forms, and lavish Hearts can wish;
Or on the mind, or mind-illumined face;
Truth, Goodness, Honour, Harmony, and Love,
The richest bounty of indulgent Heaven.—*Thomson.*

Such duty as the Subject owes the Prince,
Even such a Woman oweth to her Husband;
And, when she's froward, peevish, sullen, sour,
And, not obedient to his honest will,
What is she but a foul contending Rebel?
A graceless Traitor to her loving Lord?—*Shakspeare.*

If Idleness be the root of all Evil, then Matrimony's good for something, for it sets many a poor Woman to work.

Perpetual Harmony their bed attend,
And Venus still the well match'd pair befriend!
May she, when Time has sunk him into years,
Love her old man, and cherish his white hairs;
Nor he perceive her Charms thro' age decay,
But think each happy sun his Bridal day!—*Martial.*

Across the threshold led,
And every Tear kiss'd off as soon as shed,
His house she enters, there to be a Light
Shining within when all without is night;
A guardian-Angel o'er his life presiding,
Doubling his Pleasure, and his Cares dividing?
—*Rogers.*

Love.

All the stars of Heaven,
The deep blue noon of night, lit by an orb
Which looks a spirit, or a spirit's world—
The hues of Twilight—the sun's gorgeous coming—
His setting indescribable, which fills
My eyes with pleasant tears as I behold
Him sink, and feel my heart float softly with him
Along the western paradise of clouds—
The forest shade—the green bough—the bird's voice,
The vesper bird's, which seems to sing of love,
And mingles with the song of Cherubim,
As the day closes over Eden's walls;—
All these are nothing, to my eyes and Heart
Like —'s face: I turn from Earth to Heaven
To gaze on it. —*Byron.*

The treasures of the deep are not so precious
As are the conceal'd Comforts of a man
Lock'd up in Woman's Love. —*Middleton.*

How wayward is this foolish Love,
That, like a testy babe, will scratch the nurse,
And presently, all humbled, kiss the Rod? —*Shakspeare.*

Woman.

The hand that hath made you fair, hath made you good:
the Goodness, that is cheap in Beauty, makes Beauty brief
in goodness; but Grace, being the Soul of your complexion,
should keep the body of it ever fair.—*Shakspeare.*

Soft as the memory of buried Love!
Pure, as the Prayer which Childhood wafts above
Was she. —*Byron.*

Raptured he quits each dozing Sage,
Oh Woman! for thy lovelier page!
Sweet book! unlike the books of Art,
Whose errors are thy fairest part;
In whom, the dear Errata column
Is the best page in all the Volume. —*Moore.*

DOMESTIC RECIPES.

RUST ON DINNER KNIVES.—Cover the steel with sweet oil, well rubbing it on; let it remain forty-eight hours, and then, using unslacked lime finely powdered, rub the knife until all the rust has disappeared.

HOW TO CLEAN TIN.—Never use lye to clean tin; it will soon spoil it. Make it clean with suds, and rub with whiting, and it will look well, and last longer.

SAUSAGE.—Housekeepers will do well to preserve the following first-rate receipt for sausage:

To every twelve pounds of meat take three tablespoons of salt not much heaped, three tablespoons black pepper, eight tablespoons of sage and a teaspoon half full of red pepper.

Good sausage is splendid with buckwheat cakes in winter, and I got this receipt from a friend whose sausage is always good as long as it lasts.

BAKED APPLE PUDDING.—Two ounces of butter, quarter pound of pulverized white sugar, quarter pound boiled apples the yolks of three eggs, the whites of two eggs, the rind and juice of one lemon; mix the whole well together, and bake it in a puff paste one hour.

BOSTON GINGERBREAD.—One pound of butter, one pound of sugar, one pint of molasses, one pound of flour, six eggs, one gill of cold water, one teaspoon soda, one quart of fruit—citron and raisins.

DROP CAKE FOR BREAKFAST.—Half pint of milk, four eggs, one pound of flour, and add a little salt.

APPLE CAKE.—Two cups of stewed dried apples boiled in two cups of molasses. Drain off the the molasses (for the cake,) from the apples, add two eggs, two teaspoons of soda, four cups of flour, one cup of butter, one cup of sour milk. Spice of all kinds. Then add the apple, (which was drained as above.) The apples should be soaked the night before stewing for the cake.—*Above from Germantown Telegraph.*

TO STOP CHILLS.—Dissolve ten grains of saltpetre in a half or whole wine glass of water; as soon as the symptoms appear swallow it; then take means to cause the liver to perform its functions properly, and chills will disappear. So says a correspondent in *Richmond Farmer.*

KEEPING CIDER SWEET.—When fermentation begins in a barrel draw off the liquor into another, straining through flannel. Put into the cider $\frac{1}{4}$ oz. of the oil of sassafras and the same of the oil of wintergreen—well shaken up in a pint of alcohol. But one difficulty is found and that is to wit, that it is so palatable that people won't let it keep long.

RED ANTS—HOW TO KILL THEM.—Equal quantities of the oil of cedar and turpentine, mixed. Saturate pieces of cotton or flannel and put in where they congregate. I made use of this and never was troubled with them afterwards.

DESTROYING RED ANTS.—Place lard on a plate, and set it where the places are invested. As soon as they come in contact with the lard, they belong to the "can't-get aways."

AN EXCELLENT SALVE.—One who has used it gives the following receipt for making an excellent salve for sores, cuts, bruises, &c. Take five pounds of rosin, one pound of mutton tallow, one-fourth of an ounce of sassafras oil, half a pound of bees wax. Dissolve the rosin, tallow and beeswax in an iron vessel and mix them well together; then add the oil and stir thoroughly; then pour the whole mass into a bucket of cold water and work it up as shoemakers do their wax.—Form it into small sticks and wrap it with paper. When wanted for use, warm and spread it thin on cotton muslin in plasters large enough to cover the wound or sore, and apply it. It will adhere to the flesh and soon heal it.

HANDSOME SUBURBAN IMPROVEMENT.

Among the valuable and handsome improvements in the north-western section of Baltimore, there are few that will compare with the country seat of Mr. E. Whitman, (of the firm of E. Whitman & Sons,) on North avenue, at the point where Eutaw street joins that thoroughfare. The grounds consist of four acres, bounding on North avenue from Eutaw to Garden streets, and extending back nearly four hundred feet. That part bordering on Garden street is laid out for a vegetable garden to the width of about one hundred and fifty feet, while the remainder of the front is now being laid out in a lawn, which will be ornamented with rare evergreens and trees. Near the house are beautiful flower beds, separated by serpentine gravel walks, while in the centre will be a fountain. On each side of the fountain will be a summer house. The great feature of the improvement, however, is the elegant suburban residence. Deeming a description of the same might prove of interest to some of our readers who contemplate making improvements, we give the following details:

The house is fifty feet square and is built of wood. On the frame work it is boarded tightly, upon which slats are placed and the weather boarding is secured to that, leaving a space of about two inches between those and the wall boards. Inside of the first boarding the whole is lathed and plastered, leaving about two inches more of space, and again it is lathed and plastered on the frame work, thus giving three air chambers in the wall of the building, and thus preventing the possibility of dampness, while at the same time neither heat nor cold can penetrate. The first floor has a hall of twelve feet width running through the centre of the front on North avenue to half the depth of the building, where it is met by another hall opening toward the future extension of Eutaw street. On the right of the hall is the parlor, a spacious room, with a large bay window on the east side, and large square window in front. This room is finished in handsome style with marble mantel and rich cornice of stucco work. On the left side of the hall is the library, and in the rear of that, across the hall, is the dining room. The kitchen is in the rear of the parlor and connects with the dining room by a hall, in which are a spacious pantry and china closet. All the floors of this story are made of ash and walnut in alternate strips. The second floor is reached by a broad stairway, which is also made of ash and walnut, with heavy walnut rails, carved newel posts and turned banisters. This floor contains six chambers, bath room, which is supplied by a reservoir of a thousand gallons capacity in an adjoining apartment, and closets. The third floor is a French attic, and contains seven chambers, all of which have square ceilings, and are light, high and well ventilated. Every room in the house is private, and all are finished in the best manner with marble mantels, bells and gas fixtures. On the roof is an observatory, from which a fine view is had of the river, bay and surrounding country. The cellar is fitted for store rooms, coal bins, wine room and water room. The last named contains a cistern of upwards of three thousand gallons capacity, which will be supplied with water from the roof of the house. In the basement, under the front porch, is a bowling alley fifty feet long, which is well lighted and ventilated. The porch on the North avenue front extends the whole width of the house and is thirteen feet wide, with balconied roof,

affording a delightful retreat in the heat of the summer. The porch on the Eutaw street front is of about half the size, but both are built with substantial columns and ornamented with taste. Immediately in the rear of the house are the gas works, from which the whole premises are lighted. The stable stands to the east of the house and is a neat brick structure, after the Gothic style of architecture, and contains three floors. The basement is a stable for horses and cows, with the feed bins in front of the feeding troughs, so that the hostler is not obliged to go into the stalls to feed, while the hay is all brought from the third floor by an enclosed trap made for that purpose. The drainage from the stable is by means of an iron pipe, through which it is conveyed to the vegetable garden. The second floor is for the carriage house, and the third floor exclusively for hay. In the stable yard is a well from which the water can be pumped into the garden, and thence by aid of a hose wherever desired over the garden. The hennery is south of the stable, and the whole establishment is complete in all its arrangements. The residence will be heated by hot air furnaces, and all the rooms except the library, which is supplied with a grate, will be warmed by that means. In addition to the improvements mentioned a conservatory is to be erected between the house and stable.

Some idea may be had of the increased value of grounds in this neighborhood when a lot of five acres which was purchased fifteen years ago for five thousand dollars, can now be leased to bring an interest on upwards of one hundred thousand dollars.

A CURE FOR HOG CHOLERA.—Tar is said to be a speedy cure for the disease now prevailing among hogs. The tar should be mixed with the corn, and thus fed to the hogs. We have heard of several farmers who have done this, and in every case that has come to our knowledge, hogs that had the disease were cured, and its ravages stopped. Mr. Benj. Sherwood, of Queen Anne's county, informs us that one of his hogs was attacked with cholera, as soon as he discovered it he administered a plentiful dose of tar, the hog soon recovered. Mr. Sherwood immediately procured a barrel of tar, and mixed in with their food and not another case occurred.—Several of his neighbors tried the same thing with like results. This is a simple remedy and easily tried. The extent of this disease and the number of animals that are dying makes any effectual remedy a matter of importance.—*Comet, St. Michael's.*

A GRINDSTONE should not be exposed to the weather, as it is not only injures the woodwork, but the sun's rays harden the stone so much as, in time, to render it useless. Neither should it stand in the water in which it runs, as the part remaining in water softens so much that it wears unequally, "out of true."—*Ex.*

PATIENT.—"You need a little sun and air," said a physician to a maiden patient. "If I do," was the reply, "I'll wait till I get a husband."

SUNDAY MORNING.

The following beautiful description of Sunday morning is peculiarly attractive to us, and believe it will prove so to our readers :

"Sunday morning once more. Who does not rejoice to know it? Who fails to experience an agreeable feeling on awakening at the thought—it is Sunday morning. To the denizens of the city, buried for months together amongst streets and alleys and wharves and marts of trade; where there is the din of commerce, the racket of men hurrying, each after his affairs; the hum, the jar, the crush, the jostling of the crowd; the dashing, rattling and clangor of a thousand vehicles—to one existing week after week in all this excitement and clamor, how happy a thing it is to escape into the country, to dwell where sweet silence reigns in gentle meditation, beside gliding streams or gushing springs, in deep valleys or woods, shady woods, or on the brow of the mountain with silence all around and the awful, everlasting arch of heaven stretching in unbroken stillness over head and to the far off horizon. As the hush and solitude of the country is to the fevered agitation of the town, so is Sunday to the week days. The restless, the perpetual watchfulness and expectation of the other days, give way to a delicious indolence of the mind on those subjects that from Monday to Saturday have kept it on the stretch of activity. There is a sweet and placid languor of the brain that seems to communicate itself all around. How differently is the ear struck with the silvery vibrations of the 'church going bell,' as compared with the jerking ring, sharp and snapping, that comes from the roof of the foundry or the hurricane deck of the steamboat! The very birds overhead glide through the air with an easy flap of the unburied wing. The wind sweeps among the bushes with a leisurely whisper that suggests passiveness of spirit and quietude of heart, in the presence of peaceful nature. The stream tinkles with slow repeated notes; the trees wave with languid grace; the doves coo soft and low; the clouds float as if wafted only by the peaceful breath of angels! The house is quiet—a hush reigns in every room; the servants speak with subdued voices; only the clock dares tell its tale of passing movements with an air that is never so prominent about it as on Sunday. It is this contrast with the rushing, rapid whirl of the week day that gives Sunday its charm. The roaring torrent, foaming down the worn and fretted rock, turns the busy mill, but it is where the stream has subsided into peaceful flow; where the spray and the rushing billow have been smoothed to placid quietude, that the beauty of earth's flowers, and the serenity of heaven's blue is reflected from its gently gliding surface. It is in this calmness that the soul best communes with itself—in solemn retrospection, asking of the departed hours 'what report they bore to heaven?' It is in silence and in peace, in quietude and in calm, that man meets his God, and with a child like self-surrender, leans on the bosom of exhaustless love; for it is in the rushing wind, not in the pomp of the tempest, not in the crushing of the earthquake, not in the scathing flash, not in the crushing solo of the thunder, but in 'the still small voice' that the chosen ones of the world hear the Universal Parent."

Plaster or gypsum is composed of 46 parts of sulphuric acid, 33 parts of lime, and 21 parts water and furnishes a medium by which ammonia is conveyed to plants.

USEFUL RECIPES.

COLIC IN HORSES.—The *New England Farmer* is informed that the following is a safe and effective cure for colic:—Dissolve as much salt in a quart of pure water as may be required thoroughly to saturate the liquid, and drench the patient with one-half of it. If symptoms of relief are not noticed in fifteen minutes or half an hour, give the remainder. This remedy has proved entirely successful in very severe cases, where other more complicated medicines had failed.

CHLORIDE OF LIME FOR VERMIN.—A correspondent says:—"Four years since I took an old country-house infested with rats, mice, and flies. I stuffed every rat and mouse hole with the chloride. I threw it on the quarry-floors of the dairy and cellars. I kept saucers of it under the chests of drawers, or some other convenient piece of furniture, in every nursery, bed-room, or drawing-room. An ornamental glass vase held a quantity at the foot of each staircase. Stables, cowsheds, pigsties, all had there dose, and the result was that I thoroughly routed my enemies. Last year was a great one for wasps; they wouldn't face the chloride; though in the dining-room, in which we had none—as its smell, to me most refreshing and wholesome, is not approved by all persons—we had a perpetual warfare."

LOSS OF CUD.—This phrase is used to designate the cessation of rumination, and is a symptom of various diseases. When it is observed, the animal should be carefully watched to discover other symptoms, in order to ascertain from what disease it is suffering.

"FOULS" IN SHEEP.—Sheep are much less subject to this disease than cattle, but contract it if kept in wet, filthy yards, or on moist, poachy pastures. A wet season and tall grass some times produce it, even on dry uplands. The skin in the cleft of the foot first has a macerated or water-soaked appearance, which is followed by a degree of inflammation and lameness. It disappears when the sheep is removed to a dry yard or pasture—but more promptly if the parts have a solution of blue vitriol or turpentine applied to them, or are daubed with tar.—*Randall*.

FROSTED LIMBS, it is announced, are permanently relieved by one or two applications of a boiled lye of wood ashes, made so strong as to be quite slippery between the fingers. This lye should settle, be drained off, and have a large handful of common salt to each quart of lye mixed with it. It should be quite warm and the limbs be submerged for one or two hours.

ARSENIC.—Useful in mange and other diseases of the skin. From one ounce to an ounce and a half, dissolved in a gallon of water, will form a solution of sufficient strength.

GARGET, or inflammation of the udder causes serious distress to a cow, frequently, and sometimes entirely destroys usefulness. It can be effectually cured, it is said, by administering half a teaspoonful of aconite in a little ground feed. Cows have been known, when it was impossible to draw the milk, cured in 24 hours. Given at night, unless in extreme cases, the cow will be well the following morning. One dose is usually sufficient.

TO DESTROY LICE ON FOWLS.—Rub on hen's oil or lard about the head and neck, and under the wings, especially on sitting hens just before they hatch, and lice will never trouble them.

CATTLE WARTS, are said to be easily cured, by the use of Caustic Potash, apply the above with a stick to the warts upon the cows teats being "careful not to let the caustic eat too deep and make them sore."

BOOK NOTICES.

THE GOSPEL AMONG THE ANIMALS; or *Christ with the Cattle*. Sermon by Rev. Samuel Osgood. New York—published by Samuel R. Wells.

An able sermon of some twenty pages. Dr. Osgood takes his text from Proverbs xlii, 10—"A righteous man regardeth the life of his beast, but the tender mercies of the wicked are cruel!"—and on it makes an earnest appeal for humanity and Christianity to the brute creation.

AN ESSAY ON MAN. By Alexander Pope. With fifteen original illustrations, and Notes by S. R. Wells. One volume, 12mo, fancy cloth, beveled boards, gilt, \$1; paper 50 cents.

Whatever may be said by theologians concerning the orthodoxy of this great poet's religious views, his "Essay on Man" will continue to be regarded one of the masterpieces of English verse, and will attract the attention of, and instruct the intelligent and thoughtful.

The views of Pope on the Great Creator and His wondrous works, as enunciated in this poem, are unsurpassed for grandeur and deep-toned thought; and no writer, either of ancient or modern times, has so infused his sentiments and spirit into the literature of his nation by a single production, as Alexander Pope. The publisher of this new edition, appreciating the lack of an illustrated Essay on Man, and willing to do the public a substantial favor, has caused the work to be carefully illustrated, annotated from the Phrenological point of view, and printed in an attractive style on superior paper. A succinct biography of the poet, and is highly esteemed "Universal Prayer," are published with the "Essay," making together, a very desirable volume for the library or the center-table.

WESTERN FARMERS' ANNUAL AND RURAL COMPANION, FOR 1868.—We have received a copy of this new publication, find it highly interesting and filled with matter of the most useful and substantial character. First comes the Astronomical Calendar for each month, and a list of practical duties in regular order, followed by an essay on Education as a Practical Power; an essay on Wheat Culture, followed by essays on Dairying, Under Draining, Strawberry Culture, Sweet Potato Culture, Grape Culture, Flower Culture, &c., &c., making altogether a work of 64 pages.—It is beautifully printed, and neatly bound in heavy paper covers. Price 25 cents—address, Publisher *North Western Farmer*, Indianapolis, Indiana.

MARYLAND EDUCATIONAL JOURNAL.—The November number of this journal is received. It is devoted to popular instruction and literature. It is edited and published by E. S. Zevely, assisted by a corps of able contributors.—We take pleasure in recommending the *Journal* to all interested in popular education. Its literature and typography are of a superior character. It is published in Baltimore, at \$1.50 per annum. All letters, &c., must be addressed to E. S. Zevely, Cumberland, Md.

GRAPE LAYERS.—We have received from Messrs. Perry & Son, nurserymen, of Georgetown, Conn.—whose advertisement will be found in our columns—fine specimens of their Concord grape vines, which are well rooted and choice. We have set them out on "Ivy Hill."

LOUISIANA STATE FAIR.—This Fair has been postponed from November to the 23d of December next, and will be held, as announced heretofore, at Baton Rouge, La.

RECEIVED:

From Wm. Parry, of Pomona Garden and Nursery, Cinnamon, N. J., his fall catalogue of strawberries, raspberries, blackberries, fruit and ornamental trees, vines and plants, with descriptions of the several fruits.

From A. B. Farquhar, York, Pa., his catalogue of agricultural implements manufactured at the Pennsylvania Agricultural Works.

From John Saul, Washington, D. C., his wholesale catalogue of fruit, evergreen and ornamental trees, shrubs, stocks, roses, &c., embracing every variety.

From C. W. Grant, Iona, near Peekskill, N. Y., price list of vines for 1867, with description of the Iona and Isabella Grapes.

From Col. Oden Bowie, President Baltimore and Potomac Railroad Company, annual report of the President and Directors of the road.

From John S. Collins, Moorestown, New Jersey, descriptive and priced catalogue of plants grown and for sale at Pleasant Valley Small Fruit Farm and Nursery.

From C. E. & J. S. Fritts, Small Fruit Nursery, Elwood, N. J., catalogue of all kinds of Small Fruit.

AGRICULTURAL JOURNALS.

Frequent enquiries being made as to where the several Agricultural Journals are published, we subjoin the following list:

Southern Cultivator, Athens, Georgia.
Southern Ruralist, Amite City, Louisiana.
The Farmer, Richmond, Va.
Southern Planter, Richmond, Va.
American Farmer, Baltimore, Md.
Rural Gentleman, Baltimore, Md.
The American Agriculturist, New York.
Country Gentleman, Albany, New York.
Turf, Field and Farm, New York.
Working Farmer, New York.
The Horticulturist, New York.
Rural New Yorker, Rochester, New York.
American Farmer, Rochester, New York.
Rural American, Clinton, New York.
American Bee Gazette, New York.
The American Artisan, New York.
Utica Weekly Herald, Utica, New York.
Farm and Fireside Journal, New York.
Germantown Telegraph, Germantown, Pa.
The Gardener's Monthly, Philadelphia, Pa.
Practical Farmer, Philadelphia, Pa.
American Stock Journal, Gum Tree, Pa.
Massachusetts Ploughman, Boston, Mass.
Boston Cultivator, Boston.
Maine Farmer, Augusta, Maine.
California Farmer, San Francisco, California.
Mining and Scientific Press, San Francisco, California.
The Western Rural, Detroit, Michigan.
Colman's Rural World, St. Louis, Missouri.
Farmers' Advertiser, St. Louis, Missouri.
Wisconsin Farmer, Madison, Wis.
Northern Farmer, Fond du Lac, Wis.
Iowa Homestead, Des Moines, Iowa.
The Prairie Farmer, Chicago, Illinois.
The Sargo Journal, Cincinnati, Ohio.
Ohio Farmer, Cleveland, Ohio.
North Western Farmer, Indianapolis, Ind.
The Kansas Farmer, Lawrence, Kansas.
Canada Farmer, Toronto, Upper Canada.
Lower Canada Agriculturist, Montreal.

PROLIFIC.—The early Goodrich Potato proves to be an abundant bearer. Judge HILL, near Marlboro', raised this season forty-eight bushels from one bushel planted.—*Marlboro' Gazette*, Md.